JPRS 81742

10 September 1982

China Report

AGRICULTURE

No. 225

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS 81742

10 September 1982

CHINA REPORT

AGRICULTURE

No. 225

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

I. General Information

National

Early Control of Rural Industrial Pollution Urged
(ZHONGGUO NONGMIN BAO, 15 Jul 82).......................... 1

Exhortation Issued on Rainy Season Afforestation
(ZHONGGUO NONGMIN BAO, 22 Jul 82).......................... 3

More Counties Become Prosperous in Countryside
(XINHUA, 18 Aug 82).. 5

Country Expands Diversification of Rural Economy
(XINHUA, 23 Aug 82).. 7

Economic Importance of Grass Underscored
(ZHONGGUO NONGMIN BAO, 15 Jul 82).......................... 9

Families Specialize in Livestock, Other Products
(XINHUA, 14 Aug 82).. 11

Briefs
- Freshwater Aquatic Production 13
- Rural Income, Savings 13
- Northern Rural Capital Construction 13
- Iranian Agricultural Delegation 14

Anhui

Peasant Interest in Agrotechnology Increases
(XINHUA, 23 Aug 82).. 15

Briefs
Provincial Agriculture 17

Beijing

Briefs
Peasants' Income 18

Fujian

Flood Control Strengthened by Responsibility System
(ZHONGGUO NONGMIN BAO, 18 Jul 82)........................... 19

Gansu

Briefs
Ningxia, Gansu Wheat Harvest 21
Wheat Harvest 21
Linze County Wheat Harvest 21
Grain Procurement 21
Cheng County Wheat Harvest 21
Livestock Product Procurement Up 22

Guangdong

Majority of Guangdong's Rural Population Still Rely on Contaminated Water Sources
(NANFANG RIBAO, 12 Jun 82).................................. 23

Pointers Given on Increasing Hybrid Rice Yields
(Li Shanfa; NANFANG RIBAO, 17 Jun 82)....................... 25

Briefs
Procurement Work 27
Bumper Soybean Harvest 27
Hybrid Early Rice 27
Prefecture Grain Prices 27
Good Peanut Harvest 27
Sugar Output 28
Guangdong, Guangxi Rice Harvest 28
Early Rice Harvest 28

Guangxi

Briefs
Industrial Crop Production 29
Early Rice Harvest 29

Hebei

Summer Grain Procurement Overfulfilled
(HEBEI RIBAO, 1 Jul 82)..................................... 30

Improved Management, Scientific Farming Credited for Bumper Harvest
(HEBEI RIBAO, 28 Jun 82).. 32

Bumper Wheat Harvests Reported in Two Prefectures
(HEBEI RIBAO, 2 Jul 82).. 34

Notice Issued on Pesticide Control
(HEBEI RIBAO, 28 Jun 82).. 36

Fight Against Bollworms Outlined
(HEBEI RIBAO, 28 Jun 82).. 38

Heilongjiang

Briefs

Livestock Development 40
Dairy Product Output 40
Commune and Brigade-Run Enterprises 40
Tahe County Rainfall 41

Henan

Briefs

Province Develops Animal Husbandry 42

Hubei

Briefs

Grain, Oil Procurement 43

Hunan

Briefs

Specialized Households 44
Early Rice Harvest 44
Early Rice 44

Jiangsu

Jiangsu Flooded Farmland Quickly Drained
(XINHUA, 7 Aug 82).. 45

Jilin

Briefs

Livestock Production 46

Liaoning

Briefs

Impoverished Production Teams 47
Wheat Output 47
Liaoning Insect Pests 47

Nei Monggol

Briefs

Wheat Output 48
Ih Ju League Afforestation 48
Regional Forestry 48
Livestock Production 48
Sugar Output 48

Ningxia

Guidelines Given for Building Suburban Farms To Supply Yinchuan
(NINGXIA RIBAO, 27 Jun 82)................................ 50

Shandong

Briefs

Provincial Agriculture Progress 57
Shandong Wheat Output 57

Shanghai

Harvesting Combines Widely Introduced Into Shanghai Suburbs
(ZHONGGUO NONGMIN BAO, 22 Jul 82)......................... 58

Sichuan

Briefs

Rainfall in Sichuan Basin 60

Yunnan

New-Style Economic Combines Discussed
(Zheng Yanshi; YUNNAN RIBAO, 2 Aug 82).................... 61

Zhejiang

Briefs

Fertilizer Shortage 65
Feed Industry 65

ABSTRACTS

COTTON YIELDS

SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY], No 4, 5 Aug 82.................................... 66

FORESTRY

ZHONGGUO LINYE [FORESTRY IN CHINA], No 7, 17 Jul 82.............. 67

HYBRIDIZATION

HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCE], No 8, Aug 82... 68

WATER, SOIL CONSERVATION

SHUITU BAOCHI TONGBAO [BULLETIN OF SOIL AND WATER CONSERVATION], No 3, Jun 82)... 70

I. GENERAL INFORMATION

EARLY CONTROL OF RURAL INDUSTRIAL POLLUTION URGED

Beijing ZHONGGUO NONGMIN BAO in Chinese 15 Jul 82 p 1

[Article: "Earliest Action Must Be Taken To Control Rural Industrial Pollution, City and Countryside Construction and Environmental Protection Office Officers-in-Charge Point Out"]

[Text] The correspondent has obtained the following from the City and Countryside Construction and Environmental Protection Office. Environmental pollution currently shows a tendency to spread from the cities to rural villages in China. Officers-in-charge at this office pointed out that Suzhou Prefecture in Jiangsu Province was once a storied "land of fish and rice," but with the development of rural industry during the past several years, the waters of the network dominated by the Grand Canal have become polluted. Some places have been polluted by wastes from electroplating to the extent that their farm and aquatic products cannot be eaten. Shaoxing County in Zhejiang Province, with its green mountains and clear waters, has been seriously polluted by the effects of printing and dyeing, electroplating, and paper making plants. Nationally many rural industrial enterprises still lack facilities for the prevention and control of pollution, and frequently one small plant may pollute a river or a village or town. In many places, large and medium size industrial plants consign or transfer to commune and brigade industries for use in production the toxic and dangerous goods that they do not want to produce or process, leading to the toxification of the "country-side." Such a shifting of pollution not only harms the physical health of the broad masses of peasants, but as a result of the pollution of agricultural products, it returns to harm urban residents. Once rural villages become polluted, the investment required to clean them up is higher and difficulties greater. Therefore, effective action must be taken earliest to bring it under control.

The officer-in-charge at the City and Country Construction and Environmental Pollution Office strongly emphasized that the key to effective control of rural industrial pollution lies in all levels of the people's government conscientiously carrying out the pertinent regulations and the spirit of "Decisions on Further Intensification of Environmental Protection Work During the Period of National Economic Readjustment," and "Various Regulations on Commune and Brigade Enterprises Carrying Out National Economic Readjustment Programs," issued by the State Council, strengthening of leadership in rural industrial enterprises, and taking a firm grip on the following several tasks:

1. Need for Equitable Distribution. The building of environment polluting enterprises is not permitted upwind from cities and towns, living and residential areas, water source preserves, famous antiquities, scenic tourist sites, warm springs, convalescent areas, and nature preserves. Where such have been built, regulations are to be formulated to bring them under control within a limited period of time. Where no solution is possible, they are to be closed, suspended, merged, or retooled.

2. Strict Enforcement of the "Three Concurrent" Regulations. For all newly built, converted, or expanded enterprises, or enterprises retooling their production, pollution control equipment must be designed, built, and start up concurrent with the main project. Projects, lacking equipment to control pollution may not be constructed or, if constructed, they may not go into operation.

3. Need To Readjust Product Composition. Industries that are of low toxicity or non-toxic and that do not pollute or only slightly pollute the environment are to be advocated, and production that uses everything is to be encouraged. The practice whereby large and medium size industrial plants and cities pass off to communes and brigades for their production toxic and harmful products that they themselves do not want to produce or process is to be guarded against.

4. Reorganization of Existing Polluting Units. Clean-up action should be taken for the "three wastes" [waste gas, waste water, and industrial residue] in order to reduce pollution damage. Units that discharge the "three wastes" beyond nationally fixed standards are to be charged pollution discharge fees in accordance with regulations. For enterprises that waste large quanitities of resources and energy and seriously pollute for which no solution is available, in the course of reorganization they should be closed, suspended, merged or retooled. In addition, vigorous efforts should be made to promote comprehensive use of the "three wastes," and to promote the experiences of advanced units who protect the environment.

9432
CSO: 4007/493

EXHORTATION ISSUED ON RAINY SEASON AFFORESTATION

Beijing ZHONGGUO NONGMIN BAO in Chinese 22 Jul 82 p 1

[Article by commentator: "Firmly Grasp the Opportune Time To Afforest During the Rainy Season"]

[Text] The rainy season is a very fine season in which to plant trees for afforestation. Firmly grasping this favorable opportunity to do large-scale planting of trees for afforestation holds important significance for fulfillment of afforestation tasks for the year as a whole and for hastening the greening of the motherland.

China's forest resources are scant and very unevenly distributed, but throughout the country there are more than 1 billion mu of barren mountains and wasteland flats suitable for forests, as well as a large amount of unused land in the four besides [besides streams, roads, villages, and houses] where trees can be planted. We must carry forward the spirit of the foolish old man who moved the mountain, perserve in the planting of trees every year and afforestation in every season, and adapt general methods to local situations, taking every favorable opportunity to do large-scale planting of trees for afforestation as the only way in which to rapidly bring about the greening of the motherland and change the backward state of affairs in forestry with all possible speed.

During the rainy season when the soil is wet and humidity is high, the survival rate for afforestation is high. Areas of north and northwest China have been traditionally in the habit of afforesting during the rainy season. In these areas, the ratio of rainy season afforestation is very great in relation to afforestation for the year as a whole. Consequently, a good job of rainy season afforestation plays an extremely important role in fulfillment of afforestation tasks for the entire year.

The key to doing a good job of rainy season afforestation lies in solid preparation. The rainy season is short and strongly seasonal in character; it is necessary to do advance planning of forestlands, prepare the soil, grow seedlings, conduct technical training, arrange for worforces, and such preparatory work. Once the rainy season comes, opportunity has to be taken and concerted efforts made to finish the job; otherwise, a fine opportunity may be lost. This year the rainy season came early in North China, so in order not to miss the opportune moment, vigorous efforts to organize the masses have to be made to begin rainy season afforestation. In places in which the rainy season has not yet arrived, preparatory work of all kinds should be taken firmly in hand, and rainy season afforestation tasks assigned. All jurisdictions should do as in the case of springtime afforestation, devoting attention to rainy season afforestation now.

All levels of party and government leaders and departments concerned should strengthen leadership of rainy season afforestation and take a genuinely firm grip on rainy season afforestation. Leadership cadres have to fix work responsibility for individual tracts, and themselves lead the masses in the planting of trees for afforestation. Forestry policies are to be conscientiously implemented to stimulate the enthusiasm of the broad masses of people. Commune and brigade collective afforestation should carry out centralized leadership and centralized planning, with the adaptation of general methods to specific situations and distinction among different circumstances to put into effect various forms of forestry production responsibility systems that link results in afforestation to the calculation of compensation. Contracting may be done with commune and brigade forest farms, specialized teams, specialized units, or specialized households. Alternatively, contracting of full responsibility may be done on an individual household basis within rights, responsibilities, and benefits in contracting the transplanting of seedlings and insuring their survival clearly defined. At the time, individual commune members should be actively induced to plant trees for afforestation on privately retained mountains or in places designated by communes and brigades. A good job of rainy season afforestation also requires attention to science and emphasis on genuine benefits. A strict system of inspection and examination before acceptance has to be instituted to maintain quality and quantity so that every seedling planted survives and every tract afforested remains afforested.

In addition to doing a good job of rainy season afforestation, all jurisdictions should also make full use of the favorable conditions of soil friability following the rains to devote strict attention to readying the land in preparation for afforestation this fall or next spring. In order to consolidate results from afforestation, all jurisdictions should intensify forest trees protection and care and nurture of young forests.

9432
CSO: 4007/494

MORE COUNTIES BECOME PROSPEROUS IN COUNTRYSIDE

OW181435 Beijing XINHUA in English 0722 GMT 18 Aug 82

[Text] Beijing, 18 Aug (XINHUA)--A growing number of counties are becoming well-off in China's countryside, according to the Ministry of Agriculture, Animal Husbandry and Fishery.

According to information issued by the ministry following a national meeting on rural income, China in 1981 had 49 counties where annual peasant income from their collectives averaged more than 300 yuan for each person. There were 22 counties with such rural income level in 1980 and only four in 1979.

In recent years, China has adopted policies encouraging peasants to become prosperous by hard work. According to a sample survey of 18,500 peasant families made by the State Statistical Bureau, the 1981 per-capita income of the peasant, including income from the collective and domestic sidelines, was 67.3 percent over that in 1978. And in some areas peasant income doubled in 3 years.

Though the 49 top-earning counties account for only 2.3 percent of China's 2,100 counties, their example demonstrates that peasants in all areas, pastoral or mountainous areas or plains, can raise their income through hard work.

Nearly 11,000 production brigades had an average annual income per rural capita of 300 yuan from the collective in 1981. The number of such top earning brigades was almost double that of the preceding year.

Madoi County of Golog Tibetan Autonomous Prefecture in Qinghai Province, 4,500 meters above sea level, was the highest income earner of all counties in China last year. It increased the total number of its cattle and sheep at an average annual rate of 17.2 percent between 1979 and 1981.

In 1981 the herdsmen there delivered 150,000 newborn animals. Per capita income of the county's herdsmen derived from their collectives reached 475.3 yuan last year. The days when the herdsmen wore raw sheep skins all year round are gone. Most herdsman families have bought radios, sewing machines and carpets, and 96 percent of them have bank savings.

Last year, Tibet had nine counties where each person earned an average of over 300 yuan from the collective, the largest number of high earning counties in all China's provinces and regions. The prosperity of these counties is attributable to the state policies adopted to boost Tibet's economy. Included are: Exemption from taxes, increased purchase prices for livestock products and providing peasants and herdsmen with insecticide and free veterinary services.

Among the nine Tibetan counties are Gar County and Rutog County on Ngari grassland 4,000 meters above sea level and Yadong County in the Himalayas. Yadong County, with limited farmland, has expanded its timber industry in addition to engaging in agriculture and animal husbandry.

Nanhai County in the densely-populated Pearl River delta of Guangdong Province, with a population of 800,000, doubled its total industrial and agricultural output value in 3 years. Peasant income rose to the same extent. Since 1979, the county has expanded aquatic products breeding, silkworm raising, enlarged areas of sugar cane and other economic crops, and set up small labor intensive enterprises to produce fireworks, bamboo, rattan articles and other products. Income from small enterprises in 1981 accounted for 60 percent of the total income of rural collectives.

Collective accumulation funds are also going up. The rural collectives last year allocated 15 percent of their total income for expanded production and public welfare.

Meanwhile, the number of poor counties and rural collectives has dropped, according to the ministry.

CSO: 4020/162

COUNTRY EXPANDS DIVERSIFICATION OF RURAL ECONOMY

OW240205 Beijing XINHUA in English 1246 GMT 23 Aug 82

[Text] Beijing, 23 Aug (XINH[illegible] -Rural sideline undertakings are an increasingly important source of income for Chinese peasants and are providing employment for growing numbers of people.

Animal husbandry, forestry, rural workshops and other sidelines have expanded faster than crop cultivation in the past few years. Their annual output value went up 31 percent between 1979 and 1981, compared with the 11.5 percent for field crops.

"Only by increasing commodity production can the rural areas become well off," said Li Min, an official in charge of rural sideline undertakings in east China's Shandong Province.

For years after liberation, emphasis was put primarily on grain although the area of farmland per capita is limited. Yet there are rich resources for diversifying the rural economy on the vast expanses of mountains, hills, grasslands and inland and coastal waters. "The diversifications of the rural economy will enable the peasants to turn out more and a greater variety of commodities for sale," Li Min said.

The diversified undertakings have been made possible by the raised efficiency of the peasants following adoption of the responsibility system since 1979, Li Min said. According to agricultural departments, in many areas 20 to 30 percent of the rural labor force is being released from farm work, and this provides abundant manpower for expanding sidelines.

For instance, in Tonglu County of Zhejiang Province, 16,000 people are being drawn from farming to collective enterprises this year. This will bring the total number of people employed by the enterprises to 42,000, accounting for 30 percent of the rural manpower.

The present policy calls for unrelaxed efforts to expand grain production while encouraging other rural undertakings.

The Agricultural Bank of China is issuing 800 million yuan in low interest agricultural loans this year, specially for the construction of production centers devoted to rural sideline undertakings. In addition, much of the agricultural loans granted by provincial branches of the bank to rural collectives and peasants are also used for the diversification of the rural economy.

The rural sidelines are being expanded through two channels, collective and household undertakings.

Rapid progress has been made in expanding rural collective enterprises. At present about 30 million commune peasants, about one-tenth of China's rural labor force, are working in rural enterprises which include farm machinery workshops, chemical fertilizer plants, brick and tile kilns, textile mills, tailoring shops, shoe-making workshops, tea and fruit gardens and livestock farms. The enterprises turned out products worth 63,300 million yuan in 1981, roughly one-third of the total rural income from all sources last year.

In addition to the collective undertakings, the peasant families are raising more livestock, poultry and rabbits as domestic sidelines. Embroidery and arts and crafts are popular among peasant families in areas with such traditional skills.

With the diversification of the rural economy and the expansion of trade, townships with clusters of industrial workshops, processing mills, service trades as well as theaters and schools have come into existence in quite a number of people's communes or xiang (comprising several communes). On the Yangtze and Pearl River deltas and on the rural outskirts of Beijing and Shanghai, such small townships have sprung up in most of the communes.

Thus diversification of the rural economy is leading to a gradual change in the distribution of cities and towns in China. The new townships are becoming economic and cultural centers in the countryside.

Wang Yuchao, member of the Standing Committee of the Anhui Provincial Committee of the Chinese Communist Party, said that in Chuxian Prefecture of that province "over 30,000 young people are expected to join the rural labor force annually between now and 1990 in this area with a population of 3.3 million. They will find jobs in the countryside or in the small towns that have come into being, instead of drifting to the big cities," he noted.

CSO: 4020/162

ECONOMIC IMPORTANCE OF GRASS UNDERSCORED

Beijing ZHONGGUO NONGMIN BAO in Chinese 15 Jul 82 p 1

[Article: "North China Should Vigorously Grow Grass To Encourage Animal Husbandry To Promote Agriculture, National Grasslands Expert and Deputy Director Gansu Agricultural College, Ren Jizhou [0117 4949 0719] Suggests"]

[Text] Grasslands expert and deputy director of the Gansu Provincial Agricultural College, Professor Ren Jizhou, recently told the reporter that he believed that vigorous efforts to grow grass in North China, particularly in places having a fairly large amount of land, would both help development of animal husbandry, be beneficial to the promotion of agriculture, and would also gradually help bring about ecological balance.

Ren Jizhou said North China covers a vast area where conditions for the development of farming and the animal husbandry industry are fairly superior, but ground cover is scant; many drought disasters occur; and erosion is serious. If strengths are to be used to make up for weaknesses, simultaneously with the planting of trees for afforestation must come vigorous encouragement to the growing of grass. He said benefits from the growing of grass are numerous.

First, the grasslands are huge factories for fixing solar energy. The energy stored in organic material produced by the growing of grass throughout the world annually is roughly equivalent to the world's annual consumption of energy. This organic material greatly changes soil fertility and enriches the quality of life in the world. The organic material produced by grass is about two-thirds underground and one-third above ground. The underground portion can improve the soil, and the above ground portion makes very useful animal fodder and can be converted into mature livestock products. Gansu Province has more than 200 million mu of grasslands. Were they to be equitably used, the annual amount of meat produced would increase tremendously.

Second, grass is the ecological system's supplier of nitrogen. Pulses and pasture grasses can fix nitrogen from the atmosphere and convert it into organic matter. A single mu of alfalfa can fix about 30 jin of nitrogen in 3 years, the equivalent of almost 100 jin of ammonium nitrate. The amount of coarse protein contained in the portion of pulses and pasture grasses above ground is at least about 20 percent. This coarse protein may be directly used by animals. Thus is can be said that pulses and pasture grasses are the sources of life on earth. Many places do not devote sufficient attention to development of pulses and pasture grasses today, and this is a large problem deserving of great attention in agricultural production and for which diligent action must be taken to solve.

Third, grass plays a very great role in water and soil conservation. In places in the loess highlands with a rainfall of less than 500 millimeters, the capacity of grass to conserve water and soil is no less than that of forests. The ability of grass to soak up rainfall is virtually the same as that of forestlands. The ability of grass to bind together surface soil and prevent it from being washed away is somewhat better than that of forestlands. It can cause soil to form a granular structure that increases soil capacity to hold water. Grasslands have a far greater capacity to conserve water and soil than farmland. Many years' growing of dog's tooth grass, a member of the grass family, shows it to be 300 times more able than corn to conserve soil and water, and its ability to conserve water is about 1,000 times greater. Roots of pasture grasses that have grown for many years are about three times more numerous than from crops in general, and the area the roots cover may be from two to four times greater. The greater the area of root coverage and the larger the area of soil in contact with the roots, the greater the ability to conserve soil.

Fourth, grass greatly benefits environmental sanitation. Grasslands can absorb dust and reduce the amount of flying dust on the soil's surface. The ability of a thick growth of grass to prevent dust is more than four times greater than that of bare ground; it is strongly able to attract dust. It can purify the air, reduce environmental noise and pollution, and regulate air temperatures. Grasslands are like a thermostat in that the physiological function of grass itself causes the temperature of the grass not to rise beyond 20°C. The function of grasslands in lowering temperatures is remarkable in dry and desert areas. When sand surface temperatures reach 50 degrees, in the same area thick growths have a temperature about 10 degrees lower than the sand surface. Therefore, the more arid the place, the greater the need to grow grass.

Ren Jizhou noted that the growing of grass has to be done scientifically, the right seeds being planted in the right places, the emphasis on effectiveness. Right now most important is the taking of effective measures for positive action to win genuine results.

9432
CSO: 4007/493

FAMILIES SPECIALIZE IN LIVESTOCK, OTHER PRODUCTS

OW150758 Beijing XINHUA in English 1226 GMT 14 Aug 82

[Text] Harbin, 14 Aug (XINHUA)--More than 560,000 families specialized in raising pigs, poultry, rabbits, bees, sheep and other livestock have become an important supplier of meat, poultry, furs, skins and other products in China, according to a national meeting now in session in Harbin City.

These family undertakings are generally started by experienced peasants who have techniques and management skills, and therefore have a much higher productivity than ordinary peasant households. Some educated young people, as well as residents of city suburbs, housewives and retired city workers have also started such undertakings.

Unlike an ordinary peasant household which usually keeps a very limited number of livestock and poultry, a "specialized family" may raise dozens or even over one hundred pigs, or several hundred to over one thousand chickens.

The meeting pointed out that these "specialized families" have emerged in China following the implementation of new rural policies since 1979.

Suited to the production and management levels in China's rural areas, this form of management can better meet the needs of the growing market, the meeting noted. It is easier to run such family farms than large-scale, modernized livestock or poultry farms. This form of management is a step towards specialized and socialized production and has opened a new way for commodity production, the meeting said.

Apart from "specialized families," there are "key households" in the countryside which simply raise more animals and poultry than other commune members, while still participating in normal farm work. There are now 1.77 million such households in China's countryside.

Both these "specialized" and "key" families, totalling more than two million, are now raising more than 10 million head of livestock, 58 million poultry, 12 million rabbits and more than half a million beehives, according to figures released by the meeting.

Animal and poultry raising by "specialized families" shows many advantages, the meeting said. Following their example, ordinary households are encouraged to also take up the trade, and can begin quickly and easily.

Figures from Hebei, Shanxi, and other provinces show that the livestock and poultry farms of the "specialized families" have a high rate of marketable products. These families also help spread science and techniques in the countryside.

Both "specialized" and "key" families generally are not divorced from their collective units. They get fodder from the collectives or state grain stores and sell their products to the state.

These families have quickly increased their income. Zhao Huanshuang, a peasant in Shandong Province, set up a livestock and poultry farm on a nearby mountain. His family of four raises 470 geese, 50 chickens, 40 rabbits, eight goats, two cattle and five pigs, in addition to managing six hectares of mountain forests. He received 3,600 yuan in the first half of this year and is expected to earn a total of 7,000 yuan this year. After handing a certain sum over to his production team as public fund and deducting costs, his family income is estimated to reach 4,000 yuan in the year.

CSO: 4020/159

BRIEFS

FRESHWATER AQUATIC PRODUCTION--Beijing, 10 Aug (XINHUA)--China's total freshwater aquatic production in the first half of 1982 reached 500,000 dun, an increase of 7.1 percent over the same period last year. [Beijing XINHUA Domestic Service in Chinese 0113 GMT 10 Aug 82]

RURAL INCOME, SAVINGS--According to SHIJIE JINGJI ZAO BAO [WORLD ECONOMIC MORNING NEWS], the Chinese peasants' income in 1981 increased 67 percent over that in 1978. As of the end of April 1982, total rural savings had reached 24 billion yuan. The total amount of agricultural loans offered in the first 4 months of 1982 reached 35 billion yuan. [Shanghai City Service in Mandarin 2300 GMT 8 Aug 82]

NORTHERN RURAL CAPITAL CONSTRUCTION--An experimental project to improve animal husbandry on 286 million hectares of grassland in North China, an area nearly three times as large as all of the nation's cultivated land, is now underway. The $80 million project is being carried out by the state bureau of animal husbandry and the Agricultural Bank of China, which will administer a $35 million grant from the International Fund for Agricultural Development (IFAD). Unlike most large-scale projects, which are aimed at large, state-owned enterprises, the grassland project will focus on production brigades and individual commune members in 24 representative communes. "Eighty million dollars is not much money, considering the area involved," an official at the animal husbandry bureau told CHINA DAILY. The project will pursue different goals in different areas, depending on climate and other natural conditions, the official said. Despite some initial problems with management and with handling foreign investment, the project has gone smoothly so far, the official said. In the Kundu Commune of the Alukereqin League, Nei Mongool, for example, peasants have already completed 50 percent of the required fencing and tree planting, and 15 percent of the grass planting. Well drilling and construction of animal shelters will begin soon, the official said. [Text] [HK110233 Beijing CHINA DAILY in English 11 Aug 82 p 2]

IRANIAN AGRICULTURAL DELEGATION--Beijing, 22 Jul (IRNA)--An Iranian economic mission to the People's Republic of China, led by the undersecretary of the Ministry of Agriculture and Rural Development, Dr Abbassali Zali, visited several temples and pagodas in Beijing as well as the Forbidden City and the Temple of Heavenly Peace. The Iranian mission on Tuesday met the Chinese foreign trade and economic relations minister. The Chinese foreign trade and economic minister outlined China's agricultural and commercial status and reviewed appropriate areas in which to establish mutual cooperation. He referred also to China's extensive experience in certain agricultural and industrial fields. Then Dr Zali, in turn, referred to some measures taken after the victory of the Islamic revolution of Iran to remedy the economic havoc caused by the previous regime. The head of the Iranian mission also inspected the tractor manufacturing plants and machine works. [Tehran IRNA in English 1946 GMT 21 Jul 82]

CSO: 4020/162

PEASANT INTEREST IN AGROTECHNOLOGY INCREASES

OW230830 Beijing XINHUA in English 0738 GMT 23 Aug 82

[Text] Beijing, 23 Aug (XINHUA)--"Wherever we go, peasants come to seek our advice, in the office and the fields and even when we attend rural fairs," said Cui Huairang, who works in an agro-technique service station in Fengyang County, Anhui Province. A college graduate who has worked there for some two decades, Cui said agro-technicians "have never been so welcomed by the peasants."

Agro-technicians trained by colleges and regular secondary agro-technical schools are to be found in almost all the peoples communes of Anhui, Shandong, Zhejiang and other major agricultural provinces.

The agro-technique service center in Banqiao District where Cui Huairang works gave technical advice to 2,200 peasants in a 3-month period. The peasants often travel to a lecture on farming techniques from miles away, bringing their meals with them.

Today, radio has a special added value for peasants in China. They switch on their sets or monitoring loudspeakers in the morning or at meal time to listen to weather forecasts, information on harmful insects and plant diseases as well as knowledge about techniques for the current farming season.

Diffusion networks reach most peasant homes and the central broadcasting station in Beijing is running a teaching program for hundreds of thousands of peasants and junior agro-technicians in all parts of the country. In addition, every province and almost every county has its own broadcasting programs on agro-techniques.

Sun Guojun, head of the science education section of the Zhejiang Provincial Agricultural Department, explained why there was such a widespread keen interest in agricultural science. Under the responsibility system, he said, an estimated five million labor groups, peasant families and peasants in the province have signed contracts with production teams for farm production or sideline undertakings. Since they are directly responsible for the results, they are avid for scientific information.

"We do whatever we can to serve them, supplying them with books, lectures, films and pamphlets on agricultural science and other technical aid," Sun Guojun said. "But with millions upon millions eager to learn, our services still fall far short of demand," he said.

Thanks to the spread of scientific information, 90 percent of the rice, wheat and cotton seeds used in Anhui Province in 1981 were of fine varieties. Hybrid male sterile rice was sown on 140,000 hectares of land last year, increasing output by 160,000 tons.

In Anhui, 4,000 courses and training classes on farming techniques were given in 1981 with an attendance of two million. In all major agricultural provinces, such training classes are sponsored at the provincial, prefectural, county and commune levels.

A popular and effective way is demonstration families which voluntarily take the lead in using new seeds and new techniques in their contracted fields, guided by local technicians from sowing to harvest. With such examples at hand, surrounding peasants need not go outside their village to get ordinary technical questions answered.

At present, 52,000 of the nine million peasant households in Anhui Province are demonstrating scientific farming on 19,000 hectares. These families are called "a great supplement" to the insufficient local technical force, as the 3,300 communes only have 10,000 government agro-technicians.

Another channel for spreading agro-techniques is for agro-technicians to sign contracts with peasants to pass on methods of pest control, seed breeding and rice and wheat cultivation.

CSO: 4020/162

BRIEFS

PROVINCIAL AGRICULTURE--Anhui Province has done very well this year in agriculture, forestry, animal husbandry and fishery. The province's total summer grain output may reach 10.26 billion jin, an increase of 12 percent over the same period last year, and total rapeseed output may reach 1.9 billion jin, up 47 percent from last year. In the first 6 months of the year, the province afforested 1.29 million mu of land and planted 217 million trees around villages and houses and along roads and rivers. There were 3.6 million head of large animals in stock at the end of the first half year, 17.1 percent more than in the same period last year, and 1.88 million hogs were sold to the state, up 16.7 percent from the same period last year. [OW130755 Hefei Anhui Provincial Service in Mandarin 1100 GMT 10 Aug 82]

CSO: 4007/551

BRIEFS

PEASANTS' INCOME--Beijing, 16 Aug (XINHUA)--A survey of a cross-section of peasant families in suburban Beijing showed that their income increase in the last 3 years has surpassed the sum total increase in previous 21 years, according to the city's statistics bureau today. The survey, conducted over 525 households shows per capita income averaged 361.44 yuan in 1981, up 136.64 yuan over 1979. The average annual increase is 45.55 yuan between 1979 and 1981, as against 4.24 yuan in the previous 21 years. According to the statistics, the peasants' income from collective economy accounted for 71.9 percent of the total in 1981. Among the 525 families, 175 have an annual per capita income over 400 yuan in 1981, 49 over 500 yuan and 5 over 1,000 yuan. The statistics showed that families with annual per capita income over 300 yuan accounted for 61.9 percent of the sampling families in 1981, while those with annual per capita income under 150 yuan was only 4.2 percent in 1981. An official for the statistics bureau attributed the increased income to higher state purchasing prices for farm produce and sideline products, job responsibility system, the development of diversified economy run by communes and brigades, flourishing household sideline production, and more wage earners in these families. The statistics said 22 of the 525 families had an annual per capita income less than 130 yuan. [Beijing XINHUA in English 1232 GMT 16 Aug 82]

CSO: 4020/162

FLOOD CONTROL STRENGTHENED BY RESPONSIBILITY SYSTEM

Beijing ZHONGGUO NONGMIN BAO in Chinese 18 Jul 82 p 1

[Article: "'Double Contract' Responsibility System Manifests Formidable Power in Resisting Disasters. Jianyang Prefecture Cadre and Masses Solidarity Following Flood Disaster Revives Production Rapidly"]

> [Text] Editor's Note: This year some prefectures in several southern provinces were stricken with flood and waterlogging disasters. This was nothing out of the ordinary. Considering China's large size, it is difficult not to have a disaster in some part of it. What is so moving is that as a result of establishment of rural production responsibility systems, not only did peasant efforts in production become great, but in combat against disasters as well, they brought into play a valiant and tenacious spirit of masters in their own house. The emergence of this new situation and new atmosphere has demonstrated that policies since the Third Plenary Session of the 11th Party Central Committee have genuinely brought about fundamental changes in rural villages, and has shown the formidable power of production responsibility systems in conquering natural disasters. The several reports carried in today's newspaper on combat against disasters somewhat reflect this new situation, and readers will feel full of confidence and that prospects are bright.

In the face of a major flood disaster in mid-June, commune and brigade cadres and masses in Jianyang Prefecture, Fujian Province united as one to fight disaster and rescue from disaster in a demonstration of the formidable power produced by a combination of the superiority of collectives and individual initiative following "double contracting" whereby output quotas are based on households and households assume full responsibility for task completion.

In the rural villages of Jianyang Prefecture, where "double contracting" responsibility systems have been instituted, the rice had grown better this year than last. But in mid-June, several days of torrential rains caused houses to collapse, washed away fields with their growing crops and caused a serious disaster. No sooner had the floodwaters receded when every jurisdiction in the prefecture lost no time in beginning to rescue production, making concerted efforts to wash off plants, put plants back in place, work harder and add more fertilizer, rush plant and change plantings, and rush repairs on water conservancy facilities. In Shuikou Production Brigade in Guangze County, commune member Chen Shixue's [7115 6108 1331] house collapsed and his furniture and farm implements were washed away, causing losses of more than 3,000 yuan. But as soon as the waters receded, he went into the fields to press the seedlings back in place and wash off the crops. According to incomplete statistics, following the disaster 487,000 commune members in the prefecutre went into the fields to wash 413,700 mu of plants and to do extra work in adding fertilizer to 701,900 mu, to make additional sowings of more than 400,000 jin of late crop seeds, and to give strict attention to the prevention and control of diseases and insect pests.

After fighting the flood and doing rescue work, many communes and brigades immediately studied measures for providing for the masses and reviving production. Chengxiao Commune in Shaowu County collected 59,000 yuan from collective sources, and commune members contributed 25,000 yuan for self help to solve the livelihood problems of seriously hit households. All jurisdictions also equitably solved problems of responsibility for and remuneration of costs involved in rescue efforts. Some communes and brigades decided in the fight against disaster to institute the principle of a combination of centralization and contracting, with commune members themselves being responsible for doing the work on the fields for which they had contracted responsibility that were not greatly damaged by the disaster, records being kept on field plots that had been completely destroyed for year end unified study and solution. Farmland capital construction projects in any given production team were to be taken care of through central organization by the production team. Projects involving several production teams would be undertaken through production brigade organization. Where commune members' houses had collapsed, either near neighbors would help each other or the production team would arrange to send voluntary help from one to another in turn to provide assistance. Thus, mass enthusiasm for revival of production was very high, and some commune members voluntarily banded together to restore ditches and fields.

In recent days, Jianyang Prefecture has entered the "double contracting" season. For the time being commune members have put aside the repair and building of houses to devote themselves actively to rush harvesting and rush transplanting. As of 10 July, 56,000 mu of the early rice crop had been harvested in the prefecture, and transplanting of seedlings for the late crop was being done at the same time.

9432
CSO: 4007/494

BRIEFS

NINGXIA, GANSU WHEAT HARVEST--Beijing, 29 Jul (XINHUA)--Gansu Province in northwest China expects to harvest 2.9 million tons of spring wheat and other summer grain crops this year, nearly ten percent more than last year, according to the provincial statistical bureau. Spring wheat to be gathered on 330,000 hectares in the Gansu corridor, the province's major grain producing area, is estimated at 1.15 million tons, a ten percent increase over 1981. Hetao Plain, a major grain producing center in neighboring Ningxia Hui Autonomous Region, harvested 490,000 tons of spring wheat this year on 100,000 hectares of farmland, nearly ten percent more than the 1981 record level. The good harvest is due to the institution of the responsibility system, adoption of fine wheat strains, scientific application of chemical fertilizer and increased use of herbicides. [Text] [OW010433 Beijing XINHUA in English 0727 GMT 29 Jul 82]

WHEAT HARVEST--Gansu Province's Liangdang County has reaped a good wheat harvest in 1982. By 10 August this county had stored some 3 million jin of wheat, overfulfilling the summer grain procurement task. [Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 14 Aug 82]

LINZE COUNTY WHEAT HARVEST--Gansu Province's Linze County reaped a bumper wheat harvest on 120,000 mu of farmland. The total wheat output reached 94 million jin, an increase of 28 percent over the 1981 figure and 10 percent over that of 1980 when the wheat harvest reached an all-time high. [SK191337 Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 18 Aug 82]

GRAIN PROCUREMENT--Heshui County in Gansu Province reaped a bumper wheat harvest this year and peasants enthusiastically handed over the wheat to the state. By 10 August, the county had overfulfilled the summer grain procurement plan by 6,700 jin. [Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 18 Aug 82]

CHENG COUNTY WHEAT HARVEST--Cheng County, Gansu Province, has reaped a bumper harvest on its 270,000 mu of wheatfields in 1982. The total wheat output has reached 84.83 million jin, an increase of 38 percent over 1981. [SK161152 Lanzhou Gansu Provincial Service in Mandarin 1100 GMT 15 Aug 82]

LIVESTOCK PRODUCT PROCUREMENT UP--Gansu Province saw a large increase of livestock products during the first half of 1982. During the period, the province procured 54,000 cattlehides, an increase of 1.3 percent over the same period last year; 268,000 sheepskins, a 75.2 percent increase, and 40,200 goatskins, an 88.7 percent increase. Sheep's wool and cashmere also increased by a large margin over the same period last year. [Excerpt] [Lanzhou GANSU RIBAO 27 Jul 82 p 1]

CSO: 4007/563

MAJORITY OF GUANGDONG'S RURAL POPULATION STILL RELY ON CONTAMINATED WATER SOURCES

Guangzhou NANFANG RIBAO in Chinese 12 Jun 82 p 1

[Article: "During the Past 2 Years 3 Million People in Province's Rural Villages Now Use Clean Water Showing Improvement in Peasant Standard of Living and Cultural and Scientific Standards; Provincial Government Convenes Conference on Rural Water Improvement, Decides to Hasten Pace of Water Improvement Work To Solve Within 3 Years' Time the Problem of Drinking Water Sanitation for 8 Million Rural Population"]

[Text] The Provincial People's Government recently convened a provincial work conference on water improvement at Zinhui. The conference decided to address the problem of sanitary drinking water for 2 million members of the rural population this year and for 8 million within 3 years.

This conference was the first provincial work conference convened by the Provincila People's Government on water improvement. Attending the conference were persons in charge in all prefectures, counties, and municipalities to a total of more than 140. Deputy Provincial Governor Yang Kanghua [2799 1660 5478] gave a speech.

The conference summarized and exchanged experience. Ever since the Provincial People's government handed down directives on doing a good job of improving rural drinking water sanitation in 1980, all levels of the people's government have diligently carried them out to give vigorous impetus to development of work to improve water in rural villages of the province. As a result of these 2 years of efforts, 3 million people in the province's rural villages now use clean water, and more than 70 percent of these have running water.

The conference acknowledged that practice everywhere has shown that in order to do a good job of rural water improvement, it is necessary first of all to increase understanding of the importance and urgency of rural water improvement work, and to strengthen leadership of this work. At the present time, about 13 million people in the rural villages of the province get their drinking water out of rivers, ditches and ponds, and 1.5 million people drink highly fluoridated water or brackish water, or have inadequate water. Because drinking water is not clean, communicable intestinal diseases increase year by year. There have been cases of pesticide poisoning and food poisoning, and the tumor incidence rate rises year by year. That so many peasants drink contaminated water; more than 30 years after Liberation is an important matter that should arouse the extreme concern of all levels of the people's government. A good job of water improvement is an indication of improvement in the living standards and in the cultural and scientific levels of the peasants. It is also a benefit that the people can see and touch right away; it is something everyone wants. For ecample, Shantou Prefecture party and government leaders devoted considerable attention to the task of improving water, and took firm action. During the past 2 years the prefecture has completed work on more than 5,200 projects to improve the water, thereby benefiting 610,000 people. Now more than 70 percent of the people in eight of the prefectures 13 counties and municipalities have clean drinking water. Formerly Foshan Prefecture did not act firmly enough, but last year acted to complete construction on running water projects that benefited 360,000 people, making it the prefecture in the province with the finest accomplishments in improving water last year.

The conference acknowledged that improvement in rural village water has broad ramifications and required all departments concerned to take active responsibility, to divide tasks and cooperate, each discharging his obligations to the maximum extent possible as the way to do a good job.

The conference agreed that rural water improvement is a job for public utilities and is a collective welfare endeavor for the masses. During a time when the national economy is in somewhat strained circumstances, improvement in rural water must adhere to a program of self-reliance with "people acting with public support action by the people being paramount." Statistics from Foshan Prefecture show that last year the prefecture completed construction on 228 running water projects, investing a total of somewhat more than 11.13 million yuan, 66.4 percent of which came from funds contributed by communes, brigades, and individuals, with the state providing 16.2 percent as a support subsidy, overseas Chinese and compatriots in Hong Kong and Macao providing 11.4 percent, and industrial enterprises contributing six percent. This experience is a very good one that can hasten improvement in rural water under current circumstances in which the country is still fairly poor and the peasants are not yet very rich.

9432
CSO: 4007/476

POINTERS GIVEN ON INCREASING HYBRID RICE YIELDS

Guangzhou NANFANG RIBAO in Chinese 17 Jun 82 p 2

[Article by Li Shanfa [2621 9810 4099], Provincial Department of Agriculture: "Great Prospects for Development of Late Crop Hybrid Rice"]

[Text] Last year Guangdong Province grew 2.83 million mu of late crop hybrid rice, more than double the amount for the same period in 1980. Though the weather was abnormal, with somewhat too much rainfall and insufficient sunshine, plus damage from torrential typhoon rains and the cold dew wind during the mid and late stages of growth, nevertheless, with a rational crop pattern, proper arrangement of hybrid combinations, and adoption of a series of commensurate farming practices, all jurisdictions were able to obtain increased yields, which were generally 100 jin more and as high as more than 200 jin more per mu that from conventional varieties.

Production practice during the past several years has shown that promotion over wide areas of late crop hybrid rice is an important means of capitalizing on strengths and downplaying weakness to speed up the realization of consistently high grain yields. Today there are many conditions favoring development of late crop hybrid rice in Guangdong Province. First of all, hybrid rice has stronger growth heterosis than conventional rice; its photosynthesis is strong, its accumulation of material great, its panicles large and grains numerous; its per thousand grain weight heavy, its potential for increased yields great, and yields of more than 1,000 jin per my are easily obtainable from it. Secondly, following several years of selecting combinations, superior variety combinations Shanyou No 6, Weiyou No 6, and Shanyouke 30 have been selected. They are all characterized by good plant shapes, strong heteroses, high fruiting rates, strong resistance, strong resistance to bacterial blight and leaf hoppers, and suitability for growing as a late rice crop. Third, hybrid rice ripens early making it possible to avoid the cold dew wind. The cold dew wind is the main calamitous weather for the late rice crop, but it occurs during October in most years. If hybrid rice is sown in late June or early July and transplanted in late July or early August, it can be in full head by the end of September, and thus the late rice crop would have about a 90 percent chance of escaping the cold dew winds. In this way the passive situation could be evaded in which light sensitive types have to go through the stage of short days of sunshine in the fall in order to produce panicles, frequently encountering cold dew winds as a result. This would play a major role in changing the situation of low and inconsistent yields from the late rice crop.

Guangdong Province has accumulated some good experiences in the development by hybrid rice, but attention to the following several points is still required to farm it. (1) Need to guarantee a safe full head period. Hybrid rice is generally fairly sensitive to temperature and light, particularly during the heading and blossoming season when it can be particularly hurt by cold dew winds. For most hybrid combinations being promoted over wide areas in the province today, full heading has to occur before the end of September. Thus, it may be sown in early July and transplanted in late July or early August in south central prefectures to form heads in late September and ripen in early November. In the north and in mountain regions, sowing has to be advanced to late June or early July, with transplanting done at the end of July to assure full heading before 25 September in order to avoid the cold dew winds. (2) Numbers of seedlings have to be appropriately increased so as to get more tillers early in the season so as to assure a sufficient number of panicles for high yields. Generally speaking, between 60,000 and 80,000 basic seedlings per mu should be planted in fertile fields, and in fields of less than moderate fertility between 80,000 and 100,000 basic seedlings (including tillers) per mu should be planted. Not all hybrid rice tiller form panicles, but the panicle formation rate from early seasoning tillering is high; consequently, in order to get a substantial amount of tillering during the early season, in addition to making sure to sow lightly to nurture sturdy seedlings, open field care during the early season is very important. The experience of high yield units is to put down sufficient base fertilizer, and then within 3 to 5 days after transplanting to apply urea at the rate of 12 to 15 jin per mu. After the seedlings green up, irrigation should be done to keep the seedlings moist to promote much early season tillering. (3) Intensification of late season care to prevent premature deterioration. After the fields have been sunned and water returned to them, if plant condition warrants, a top dressing of panicle fertilizer should be applied. Examination of plants has shown that when panicle fertilizer is applied around the 13 leaf stage, the heading rate is higher than when it is applied at the 14 leaf stafe, for an increase in yields of about 5 percent per mu. When panicles rupture and growth of the standing grain is unsatisfactory, a spraying should be given using phosphate fertilizer and urea. Experiments show that leaf spraying with phosphate fertilizer produces yield increases of form 3 to 5 percent as compared with no spraying with phosphate fertilizer, and that spraying twice produces 4 to 6 percent greater yields than spraying once. In water management, fields must be kept moist and premature withdrawal of water strictly guarded against. Withdrawal of water 7 days before harvesting produces 20 to 30 percent greater yields than withdrawal of water 12 days before harvesting.

9432
CSO: 4007/476

BRIEFS

PROCUREMENT WORK--The total amount of agricultural and sideline products procured in Guangdong Province in the first half of this year was 2.11 billion yuan, which was 11.8 percent more than in the corresponding period of last year. [HK110509 Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 6 Aug 82]

BUMPER SOYBEAN HARVEST--Guangdong Province reaped a bumper soybean harvest this summer. The total soybean output in the province is 170,000 dan more than the same period last year, which is an 11.8 percent increase. The average output per mu is 137 jin, which is 14 jin more than the same period last year. Both the total output and the per mu output figures have set new records. The increase has been due to the expansion of the area of land that has been used in cultivating soybeans and to scientific farming. [Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 9 Aug 82]

HYBRID EARLY RICE--Guangdong Province reaped a bumper harvest from 2.8048 million mu of hybrid early rice and per-mu yield was about 100 jin more than the per-mu yield of conventional early rice. The area sown with hybrid early rice this year was 150 percent more than in the corresponding period of last year. [HK111355 Guangzhou Guangdong Provincial Service in Mandarin 2350 GMT 8 Aug 82]

PREFECTURE GRAIN PRICES--Since the summer harvest, the grain prices in Zhanjiang Prefecture have dropped. The negotiated price of rice sold by the grain stations on the Leizhou Peninsula, the Jiangjiang Plain and the bank of the Moyangjiang River has fallen from .38 yuan a jin to .35 yuan a jin. The price of every 100 jin of unhulled rice sold by the agricultural market has been reduced by 3 to 4 yuan. The per-jin price of sweet potatoes is .04 to .05 yuan. The prices of miscellaneous food grains and beans have also dropped accordingly. The gradual reduction in grain prices in the prefecture is the result of ample supplies of grain. [Guangzhou Guangdong Provincial Service in Mandarin 2350 GMT 8 Aug 82]

GOOD PEANUT HARVEST--Guangdong Province has completed the harvesting of the 5.31 million mu of spring-sown peanuts. According to statistics compiled by relevant departments, total output of peanuts is some 10.27 million dan, 4.9 percent more than in the corresponding period of last year. Total output and per-mu yield have exceeded the previous highest levels. The province has increased peanut production for 4 consecutive years. [Guangzhou Guangdong Provincial Service in Mandarin 2350 GMT 8 Aug 82]

SUGAR OUTPUT--As of early August, Guangdong had turned in to the state 630,000 dun of sugar, overfulfilling its quota by 90,000 dun and registering a 57.5 percent increase compared with last year. In the 1981-82 sugar season, Guangdong's total sugar output was 1.28 million dun. [OW130805 Beijing XINHUA Domestic Service in Chinese 0114 GMT 11 Aug 82]

GUANGDONG, GUANGXI RICE HARVEST--Beijing, 4 Aug (XINHUA)--Guangdong Province, one of China's major rice producers reports a harvest of 8.25 million tons of early rice this year, 350,000 tons more than in 1981. Per-hectare rice yield was 4.38 tons, 262.5 kilograms more than last year's figure. The neighboring Guangxi Zhuang Autonomous Region, also a major rice producing area, expects to harvest about 400,000 tons more early rice on 1.2 million hectares of fields this year than last. Heavy rains hit Guangdong between mid-May and June and affected 166,000 hectares of rice fields. In Guangxi also, the paddy fields of 19 countries in the northern and eastern parts were innundated due to the heavy downpours. The good harvest, provincial and regional agricultural departments said, represented an achievement made despite waterlogging, and is due to the institution of the job responsibility system, popularization of fine rice strains and transformation of low-yield fields. [Text] [Beijing XINHUA in English 0727 GMT 4 Aug 82]

EARLY RICE HARVEST--According to a preliminary estimate, Guangdong Province has reaped a bumper harvest of early rice with total output of 16.5 billion jin, an increase of more than 700 million jin compared to 1980. The per unit yield is 584 jin, an increase of 35 jin. [Excerpt] [Beijing RENMIN RIBAO 4 Aug 82 p 1]

CSO: 4007/570

BRIEFS

INDUSTRIAL CROP PRODUCTION--Despite natural disasters, Guangxi region reaped a bumper harvest of industrial crops in the first half of this year. According to statistics, by the end of June the region had procured some 16,200 dan of pineapples, which was 39.12 percent more than in the first half of last year; some 86,000 dan of bananas, which was 68.7 percent more than in the corresponding period of last year; and some 65,300 dan of tea, which was 21.72 percent more than in the same period of last year. [HK110833 Nanning Guangxi Regional Service in Mandarin 1130 GMT 8 Aug 82]

EARLY RICE HARVEST--Guangxi Zhuang Autonomous Region reaped more than 18 million mu of early rice, with total output projected to be about 800 million jin more than 1981. The most obvious characteristic of this year's early rice production is a balanced increase of output over a large area. Of the region's 8 prefectures, 7 increased output. [Excerpt] [Beijing RENMIN RIBAO 4 Aug 82 p 1]

CSO: 4007/569

SUMMER GRAIN PROCUREMENT OVERFULFILLED

Shijiazhuang HEBEI RIBAO in Chinese 1 Jul 82 p 1

[Article: "Province's Summer Grain Procurement and Warehousing In Full Tide. Large and Small Trucks Fully Loaded With Summer Grain Head From All Directions Toward State Granaries. Twnety-nine Counties (or Municipalities) Have Fulfilled or Overfulfilled Their Summer Grain Procurement Quotas"]

[Text] The province's summer grain procurement and warehousing is in full tide. For days on end, highways and main thoroughfares have been a bustling scene of large and small trucks fully loaded with summer grain moving in an endless stream from all directions toward state granaries. They have averaged deposits in granaries of more than 100 million jin daily. As of 29 June, the summer grain procured and stored in granaries amounted to 54.3 percent of plan. Cangzhou Prefecture has overfulfilled this year's summer grain procurement quota, the amount going into granaries being 2.7 times that of the same period last year. Quotas were fulfilled 40 days earlier than last year. Handan Prefecture and Shijiazhuang City have fulfilled more than 85 percent of their summer grain state procurement quotas, and the pace of procurement and warehousing in Hengshui and Baoding prefectures is notably faster than during the same period last year. After nine counties including Nanpi, Linzhang, Handan, and Ji fulfilled their summer grain state procurement quotas, the counties of Daming, Wei, Jize, Guangping, Cheng'an, Ci, Wuan, Xinhe, Pingshan, Qingyuan, Anci, Wenan, Dacheng, Xian, Hejian, Dongguan, Wuqian, Mengcun, Suning, and Cangzhou City fulfilled and overfulfilled their summer grain state procurement quotas.

This year the province's summer grain crops encountered severe, protracted drought, and during the late stage, hot dry winds and aphid pests occurred. However, thanks to the tremendous power of the party's policies the further perfection and completion of production responsibility systems, and the combat against disaster and painstaking care of the broad masses, damage caused by the disasters was reduced. Cangzhou Prefecture located in the Heilonggang Basin has a smaller summer harvest area than last year. The masses praise the party's policies as being good, and eagerly sell patriotic grain to the state. In order to win the battle of summer grain procurement, leaders at all levels have taken the initiative for all of this year, and for the next 2 years, have genuinely strengthened leadership, and have diligently implemented existing contract procurement policies, which have won the confidence of the people.

Grain departments have increased the number of network outlets to get grain into granaries and have lengthened work hours. Some places have transferred personnel, and have gone into production teams with scales, containers, and cash to make onsite examinations of quality, using every available means to accomodate the masses in making sales, thereby accelerating the pace of grain getting into granaries.

9432
CSO: 4007/489

IMPROVED MANAGEMENT, SCIENTIFIC FARMING CREDITED FOR BUMPER HARVEST

Shijiazhuang HEBEI RIBAO in Chinese 28 Jun 82 p 1

[Article: "Qiu County Conquers Drought, Insect Pests, and Wind Disasters To Win Bumper Wheat Harvest. Ninety Percent Increase in Gross Output Over Last Year, and Yields Per Unit of Area Almost Double Last Year's"]

[Text] During this time of the wheat harvest, heartening news of a bumper harvest has been relayed from Qiu County located in the Heilonggang Basin. The county's 175,000 mu of wheatfields have delivered an output of 35 million jin, a 90 percent increase over last year, and yields per unit of area amounted to 200 jin, almost double last year's.

Use of the spirit of the Central Committee Rural Work Conference to solve crucial problems currently existing in rural work is the most important reason for the bumper summer harvest that this county reaped. In this county, 98 percent of production teams have instituted responsibility systems whereby peasant households assume full responsibility for task completion. Nevertheless, two problems were fairly prominent. One was that many production team groups were in a state of paralysis or semi-paralysis; the second was that pump well management was in disarray, and peasants found it difficult to water their fields. In view of these circumstances, last winter and this spring, firm action was taken throughout the county to reorganize grassroots level groups and pump well management systems of responsibility. Groups that had been reorganized and readjusted made full use of their accumulated skills. In the realm of pump well management, everything was under the centralized management of production brigades, production teams, or work teams, with specific persons designated responsible in the practice of different forms of responsibility systems, which greatly increased the pump well effective watering rate. Most of the county's wheatfields were watered more than twice, and in many production teams watering was done four or five times. Watering was done on a cumulative 440,000 mu throughout the county, making it an all time high year for area of wheatfields watered.

Spread of science and technology and institution of scientific farming was yet another important reason for this county's being able to harvest a bumper wheat crop this year. In view of the new circumstances whereby individual households assumed full responsibility for tasks, agricultural technicians and commune members in most communes signed agreements linking output to wheat growing techniques. During different stages of wheat growth, agricultural science and technology units would use wired broadcasts, disseminate printed materials, and give on-site demonstrations to impart scientific techniques and rotationally train more than 30,000 mainstay cadres in techniques. They emphasized more than in previous years three methods of scientific crop care. One was increased fertilization with phosphate; second was a good job of winter irrigation and proper postponement of irrigation for greening up; and third was fairly effective prevention and control of wheat aphid and hot dry wind damage.

9432
CSO: 4007/489

BUMPER WHEAT HARVESTS REPORTED IN TWO PREFECTURES

Shijiazhuang HEBEI RIBAO in Chinese 2 Jul 82 p 1

[Article: "Cangzhou and Hengshui Prefectures Win Bumper Wheat Harvest. Diligent Perfection of Production Responsibility Systems and Tenacious Struggle Against Severe Drought"]

[Text] Canzhou Prefecture, located in the middle and lower reaches of Heilonggang, has relayed joyous news about a bumper summer harvest. Statistics from prefectural units concerned show that despite 4 consecutive years of drought and a 20 percent reduction from last year in the prefecture's wheat growing area, total wheat output has increased 40 percent and yields per unit of area have increased more than 60 percent this year. As of 29 June, the prefecture had already overfulfilled its summer state procurement quota.

Beginning with the fight against drought to plant wheat last fall, Cangzhou Prefecture promoted various forms of production responsiblity systems, which sparked the energies of cadres and commune members. Throughout the prefecture, soil moisture was made on more than 3 million mu of wheat growing area, and quality of sowing was such as had not been seen for many a year. Last winter and this spring, all counties and communes took a firm grip on the perfection of responsibility systems, helped contracting households solve real difficulties, brought into full play the initiative of both collectives and commune members, and gave impetus to the launching of a struggle against drought. Throughout the prefecture a general mobilization of males, females, the old and the young took place, and round the clock all out efforts were made to sink wells and water the wheat. Within a several month period, funds raised for water conservancy alone amounted to more than 38.6 million yuan, including more than 17.7 million contributed by commune members themselves. In fighting drought to water the wheat, for more than 85 percent of the pump wells in the prefecture, responsibility systems were applied. In Nanpi County, where a good job was done, various forms of contracting were done for more than 2,900 pump wells and associated equipment. Watering of fields from deep wells increased from 15 to 33 mu daily, and watering from shallow wells rose from 7 mu to 14 mu daily while watering costs dropped 30 percent. In addition, throughout the prefecture more than 230 new deep pump wells, more than 3,500 shallow pump wells, and more than 9,000 vacuum wells were sunk. In addition, more than 60,000 hand pump vacuum wells were added. This plus the use of some water diverted from the Huang. He permitted the watering of a total wheatfield area in the prefecture of more than 3.7 million mu, 1 million mu more than during the same period last year. All counties and communes stabilized and perfected production responsiblity systems, which they developed toward the linking of output to technology to promote scientific management of the wheat and scientific use of water. In some communes and brigades new techniques of "shallow application of two fertilizers," use of brackish water, and regionalization of fine varieties were promoted over wide areas to make for a bumper wheat harvest.

Hengshui Prefecture conquered serious drought to win a bumper wheat harvest this year. Despite a 700,000 reduction from last year in the wheat growing area, total output increased almost 30 percent over last year.

This prefecture has had drought for 4 consecutive years. Under these circumstances, beginning with wheat planting last year, all levels of leadership cadres throughout the prefecture went deep into the countryside to publicize pertinent documents of the Central Committee, to study new circumstances, to solve new problems, to focus principal efforts on the perfection of various production responsibility systems, and to emphasize establishment and perfection of pump well management responsibility systems so that pump wells and such water conservancy facilities would find full use. In addition, commune and brigade collectives and individuals used every available means to accumulate funds to sink more than 3,200 pump wells of various kinds, and to repair more than 3,400 defective or broken wells. Some counties used water diverted from the Huang He, thereby being able to water 700,000 mu more wheat this year than last. The Fucheng County CCP Committee and county government selected 100 comrades with rural work experience who understood policies to organize work teams to go from village to village to help perfect production responsibility systems and to spur on the fight against drought for a bumper harvest. Every one of the 22 communes in the county doubled its summer output. Throughout the prefecture, scientific management of wheat was also better than in former years. By way of spreading scientific techniques, in addition to emphasizing the training of farm technicians, all the counties and communes in the prefecture ran a total of 657 farm technology training classes, 427 special seminars on wheat management techniques, more than 490,000 people receiving training. This brought about the scientific watering of fields, application of top dressings of fertilizer at the right time and in the right amount, and a change particularly from the former spreading of phosphate fertilizer all over the ground to shallow application of a mixture of phosphate and nitrogenous fertilizer for very good results.

9432
CSO: 4007/489

NOTICE ISSUED ON PESTICIDE CONTROL

Shijiazhuang HEBEI RIBAO in Chinese 28 Jun 82 p 1

[Article: "Intensify Pesticide Management To Strictly Guard Against Accidental Poisoning. Relevant Provincial Departments Issue Joint Notice"]

[Text] Recently the Provincial Public Security Department, the Health Bureau, the Agricultural Bureau, the Supply and Marketing Administration, and the Chemical Industry Bureau issued a joint notice requiring all jurisdictions to intensify pesticide management to strictly guard against accidental poisonings.

The notice said that the farflung rural villages of the province have entered a period of eradication of agricultural crop disease and insect pests, and all jurisdictions are to emphasize propaganda and education in the safe use of pesticides. In rural villages, production teams should designate a person with specific responsibility or concurrent responsibility for the safekeeping and use of pesticides. Persons who have not undergone training or lack safety knowledge shall not be permitted to use or store pesticides. All pesticides must be centrally purchased by production teams or specialized teams, and their use is to be strictly managed. All regulations pertaining to pesticide use are to be strictly observed. All pesticide containers must bear complete and firmly attached lables as well as detailed instructions for use. Those not meeting these aforestated requirements are, without exception, not to be permitted to leave the plant where they are manufactured. Mixing of pesticides, or soaking and mixing seeds in them, is to be done far away from drinking water sources, cattle feed sites, messhalls, granaries, and foodstuffs. When used, protective clothing and equipment is to be worn, and required antidotes are to be carried. It is forbidden to spray pesticides during noon heat or with exposed arms or body. Fields and orchards that have been sprayed with insecticides should be clearly posted during the danger period, and both people and livestock kept from entering.

The notice said that in the work of preventing and controlling farm crop diseases and insect pests, it is necessary to stick to the principle of "centralized organization of prevention and control," instituting centralized inspections for insects, centralized purchases of pesticides, centralized storage, centralized mixing of pesticides, and centralized treatment of crops done by specialized teams, fees being levied on separate households on the basis of the area covered in a treatment system of "five centralized and one separate." This is a fundamental reversal of separate household purchases of pesticides, keeping of pesticides, and use of pesticides so as to eliminate unsafe factors. It is strictly prohibited to sell pesticides without authorization or to resell insecticides privately at a profit. For all chemical pesticides with the exception of benzene hexachloride, DDT, and dichlorvos, which may be sold by grassroots supply and marketing units for use in public health, all other pesticides must be supplied soley by centralized means of production supply units. Purchases of pesticides must be done against certificates issued by production brigades. Responsibility will be fixed for violators.

9432
CSO: 4007/488

FIGHT AGAINST BOLLWORMS OUTLINED

Shijiazhuang HEBEI RIBAO in Chinese 28 Jun 82 p 1

[Article: "Handan Prefecture Goes All Out To Eliminate Cotton Bollworms. All Levels of Leaders Go Into Cottonfields, and All Departments Make Concerted Effort"]

[Text] In order to insure normal cotton growth, Handan Prefecture leadership cadres at all levels have gone into the cottonfields to lead the masses in an all out effort to eliminate second generation bollworms.

According to most recent monitoring reports, second generation bollworms have broken out everywhere in this prefecture 10 days earlier than in most years, and ova are from 8 to 10 times more numerous than in most years. Never has there been a bollworm situation as severe as this one during the same period in this prefecture. In order to eliminate them at once, the Provincial CCP Committee and government administrative offices issued a bollworm prevention and control report in early June, and on 16 June they held an on-site meeting at Qiu County at which all levels of all units were asked to establish personal responsibility systems, take genuine control of the bollworm situation, pick the proper time for combat, and arouse the masses to make an all out effort at elimination. Qiu County, which acted relatively early, fielded 20,000 people and used 18,000 pieces of spraying apparatus. By 16 June it had cleared 110,000 mu to bring the bollworms virtually under control. Comrades in charge at the Linzhang County CCP Committee Standing Committee, the deputy county magistrate, and the chairman and deputy chairman of the representative assembly, as well as those in charge of departments, offices, committees, and bureaus went to villages and communes in an all out effort to direct control of the bollworms, An overwhelming majority of communes and brigades in the prefecture instituted centralized monitoring and reporting, centralized purchases of pesticides, centralized formulation of pesticides, centralized standards, and centralized times, the work of eliminating bollworms being done by separate households. They used a combination of highly effective pesticides and conventional pesticides, native methods and foreign methods, a combination of powders and emulsions, and a combination of biological prevention and control and chemical prevention and control. Farm technicians at all levels both promptly and accurately monitored and reported on the bollworm situation and also used diverse methods to get bollworm control techniques into the hands of the myriad households. Supply and marketing units persevered in gearing to the needs of production and service to agriculture, lengthening hours of operation and taking the initiative in sending pesticide apparatus to production teams and households. According to 10 June statistics, prefecture supply and marketing cooperatives had already sent to the countryside more than 5,700 tons of pesticide and more than 66,000 pieces of pesticide equipment. As of 17 June, more than 860,000 mu had been cleared in the prefecture, amounting to 80 percent of the area of bollworm occurrence.

9432
CSO: 4007/489

HEILONGJIANG

BRIEFS

LIVESTOCK DEVELOPMENT--After production readjustment between agriculture and livestock, Heilongjiang Province has made great progress in developing livestock. The province has zoned Anda County and Dorbod Monggol Autonomous County as livestock areas and 11 other counties in western Heilongjiang including Longjiang, Fuyu, Gannan and Tailai, as half agricultural and half livestock areas. Cattle and sheep sold by the 13 counties to the state account for 48 percent of the total number in the province and wool output, 50 percent of the provincial volume. According to statistics compiled at the end of June, the province scored a 600-700 percent increase in raising milk cows over the former figure and a 10-fold increase in raising cattle and horses. It also scored a 75 percent increase in raising milk cows over 1978's figure and a 100 percent increase in raising sheep, as well as scoring a 100 percent increase in meat cattle sold to the state over 1978's figure, a 150 percent increase in fresh milk and a 200 percent increase in sheep's wool. In 1981, per capita income from livestock undertakings scored a 40 percent increase over the previous peak. [SK141206 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 13 Aug 82]

DAIRY PRODUCT OUTPUT--Since the third plenary session of the 11th CPC Central Committee, Heilongjiang Province has scored an over 37 percent increase in dairy industrial production each year. In 1981, the province surpassed the 1978 output by 140 percent. Over the past 3 years, the province has accumulated over 27 million yuan for the state. As of July this year, the province had 100,000 head of milk cows, a more than 100 percent increase over the 1981 figure. Through technical renovations, dairy farms across the province have upgraded their daily capacity in processing fresh milk from over 300 tons to over 600 tons. [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 13 Aug 82]

COMMUNE AND BRIGADE-RUN ENTERPRISES--Since the third plenary session of the 11th CPC Central Committee, Heilongjiang Province has made great progress in developing commune and brigade-run enterprises. According to statistics compiled at the end of 1981, the province had over 21,000 enterprises of this kind, which employed over 544,000 people. Over the past 3 years, the province has scored a 14.4 percent increase in the enterprise number each year, has handed over 120 million yuan of taxes to the state, has conserved 450 million yuan for collective accumulation and has scored an over 800 million yuan increase for commune member incomes. At present, the province has 3,600 production networks and centers that have achieved over 300 million yuan of output value over the past 3 years. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 13 Aug 82]

TAHE COUNTY RAINFALL--Owing to a 115-mm torrential rainfall on 8 August, residents of 1,500 households in Tahe County, Heilongjiang Province, were plagued with torrents of water rushing down the mountains. According to a report made by rescue teams dispatched by the county people's government, there were no casualties thanks to timely rescue operations. [SK170945 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 16 Aug 82]

CSO: 4007/551

BRIEFS

PROVINCE DEVELOPS ANIMAL HUSBANDRY--The number of draft cattle on hand in 1981 was 6.1 million head and was 18.4 percent more than in 1978. The number of draft cattle on hand by the end of June this year was 6.295 million heads and was 11.5 percent more than in the corresponding period of last year. The province now has some 50,000 specialized and key households in livestock production. [Zhengzhou Henan Provincial Service in Mandarin 1100 GMT 16 Aug 82]

CSO: 4007/551

BRIEFS

GRAIN, OIL PROCUREMENT--By the end of July, Hubei Province had procured 2.47 billion jin of summer grain and stored it in granaries, overfulfilling its procurement quota by 37 percent. The province procured some 340 million jin more than in 1979, a year of a big bumper harvest. By the end of July, the province had stored 4.348 million dan of rapeseeds, overfulfilling its procurement quota by 90 percent. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 5 Aug 82]

CSO: 4007/551

BRIEFS

SPECIALIZED HOUSEHOLDS--Since the implementation of the production responsibility system, rural areas in Changde, Yiyang, Yueyang, Hengyang, Lingling and Chenzhou Prefectures have some 311,000 specialized households and key households. These specialized households and key households have made good use of the local natural resources to promote planting, animal husbandry and processing industry. They work very hard to bring their strong points into full play and have become rich. If the average output value of a standard agricultural worker is more than 800 yuan, the average output value of specialized households is as much as 1,500 to 3,000 yuan. A woman peasant in Taoyuan County who is specialized in breeding rabbits is able to get an output value of 4,000 yuan a year. Eighteen specialized households and key households in Huarong County were able to earn 10,000 yuan last year. [Changsha Hunan Provincial Service in Mandarin 1100 GMT 9 Aug 82]

EARLY RICE HARVEST--Hunan Province reaped a good early rice harvest this year despite serious natural disasters. According to statistics, the total output of early rice was 19.96 billion jin, 307 million jin more than last year and an increase of 1.61 percent. This is the highest record of the province. Nine out of the 16 prefectures and municipalities have increased output, of which, Yiyang Prefecture has increased its output by 123 million jin, an increase of 5.29 percent. Sixty-six out of the province's 101 counties have increased output. Of which, 14 have increased it by more than 100 percent. Although the seeded area of early rice was reduced, the per unit area yield has increased by 18 jin overlast year. The province has been able to reap a bumper early rice harvest since the agricultural production responsibility system has been further stabilized and perfected and the peasants' enthusiasm has been promoted. By the end of March, 99.4 percent of the province's production teams had established the production responsibility system. Furthermore, scientific agricultural measures have been implemented, and the weather is favorable for crops. [Changsha Hunan Provincial Service in Mandarin 1100 GMT 9 Aug 82]

EARLY RICE--Changsha, 10 Aug (XINHUA)--Hunan Province has harvested 9.98 million tons of early rice this year, 153,500 tons more than last year, provincial authorities announced today. Total and per unit outputs of early rice this year are all-time highs, authorities said. Hunan Province is a major early rice producer of China's. The crop accounts for 40 percent of the province's annual output of grain. [Text] [Beijing XINHUA in English 1524 GMT 10 Aug 82]

CSO: 4020/162

JIANGSU FLOODED FARMLAND QUICKLY DRAINED

OW071353 Beijing XINHUA in English 1201 GMT 7 Aug 82

[Text] Nanjing, 7 Aug (XINHUA)--Most of the 660,000 hectares of low-lying farmland swamped by rainstorms in Jiangsu Province in July were drained in one or two days, according to the provincial government.

Between 9 and 24 July, rain hit 68 of the 75 counties and cities in Jiangsu Province. Precipitation exceeded 100 millimeters. In some places, the rainfall topped 300 millimeters.

Most of the local rivers rose above the warning mark.

No river dike was breached along the hundreds of kilometers protected.

The first and second communist party secretaries and the acting governor gave guidance in the battle. People's Liberation Army units helped the people guard the dikes and drain the fields.

Two million horsepower of pumps were used for drainage.

When the rising water level of the Chuhe River menaced the Beijing-Shanghai Railway, over 10,000 cadres and peasants stood guard on the river dikes. Safe operation of the railway was ensured.

A good wheat harvest was reaped by the province this summer and the people are now working for another good harvest this autumn.

CSO: 4020/159

JILIN

BRIEFS

LIVESTOCK PRODUCTION--According to a cross-section survey of 360 commune member households in Jilin Province, commune member's household income from livestock breeding increased at an average rate of 31.7 percent annually in the past 3 years. In 1981 income from rearing stock was 132.2 yuan per household, accounting for 45.1 percent of these households' total income. [Changchun Jilin Provincial Service in Mandarin 1100 GMT 23 Aug 82]

CSO: 4007/551

BRIEFS

IMPOVERISHED PRODUCTION TEAMS--Under the support of the Yingkou County CPC Committee, a number of impoverished production teams in the mountainous areas of this county have improved their backward situation. By the end of 1981, production teams with an average per capita income of only 50 yuan decreased from 386 in 1978 to 52, about 2.5 percent of the total number of production teams in the county. In 1980, the Yingkou County CPC Committee organized 21 committees, offices and bureaus to help 101 production teams in five communes develop breeding and planting undertakings, thus succeeding in bringing prosperity to the backward mountain areas. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 3 Aug 82]

WHEAT OUTPUT--Faku County, Liaoning Province, has reaped a bumper wheat harvest this year. According to statistics, the county's total output reached over 15 million jins, a 2.76 million jin increase over the 1981 figure and topping previous peaks. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 14 Aug 82]

LIAONING INSECT PESTS--Our reporters have learned from the provincial farm crops insect pests forecast station that since early August the snout moth's larva pest is spreading throughout most of Liaoning Province. This serious plague will hit Jianchang County in Chaoyang Prefecture; Heishan, Xingcheng and Suizhong Counties in Jinzhou Municipality. The plague is expected to expand into a number of areas. Localities in the province should vigilantly conduct examinations and prevention work in a timely manner. [Text] [SK090958 Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 8 Aug 82]

CSO: 5400/4014

BRIEFS

WHEAT OUTPUT--In spite of the drought this year, Jirem League, Nei Monggol Autonomous Region, has reaped a bumper wheat harvest. The output of its 250,000 mu wheat crop is expected to reach the peak scored in 1981. [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 16 Aug 82]

IH JU LEAGUE AFFORESTATION--Ih Ju League, Nei Monggol Autonomous Region, has mobilized the masses to plant trees during the rainy season. As of mid-August, the league forested 1.12 million mu and rushed to plant 386,000 mu of fine-quality forage grass. [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 17 Aug 82]

REGIONAL FORESTRY--According to statistics compiled by the Nei Monggol Autonomous Regional Forestry Department, the region planted 5.45 million mu of trees in spring and rainy seasons [this] year, a 980,000 mu increase over the 1978 figure. In addition, the people throughout the region obligatorily planted 31 million trees and 164,000 mu of forests. From 1979 to 1981 the region planted 14.75 million mu of trees and scored a 10 percent increase each year. Rural people in the region planted 270 million trees and scored a 38 percent increase each year. [SK170947 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 16 Aug 82]

LIVESTOCK PRODUCTION--While people throughout the country are jubilant over the imminent convocation of the 12th party congress, good news is reported from the livestock production front in Nei Monggol. According to statistics made available by the Regional Statistical Bureau, by the end of June the region had 47.2 million head of livestock, an increase of 1.52 million head over the corresponding 1981 figure. This figure was higher than the previous record in 1980 by 650,000 head. The total number of cattle, horses, camels, sheep and goats stood at 42.4 million, topping the previous record in 1965 by 420,000. Some 26.6 million head of the livestock, 56.4 percent of the total, are owned by the peasants. [SK141052 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 13 Aug 82]

SUGAR OUTPUT--Since the third plenary session of the 11th CPC Central Committee, Nei Monggol Autonomous Region has made marked progress in sugar refinement. According to statistics, the region has turned out 279,000 tons of white sugar over the past 3 years, from which the region has accumulated about 40 million yuan of funds for the state. In addition, the region increased its beet planted acreage from 790,000 mu in 1978 to 980,000 mu in 1981 and its beet output from 380,000 tons in 1978 to 780,000 tons in 1981. The region has planted 1.01 million mu of sugar beets this year. Its beet output is expected to be over 1 million tons. [SK210558 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 20 Aug 82]

CSO: 4007/551

GUIDELINES GIVEN FOR BUILDING SUBURBAN FARMS TO SUPPLY YINCHUAN

Yinchuan NINGXIA RIBAO in Chinese 27 Jun 82 p 2

[Article by Autonomous Region CCP Committee Investigation Unit: "Build Suburban Yinchuan Into a Non-Staple Food Production Base With All Possible Speed--a Survey of Development of Economic Diversification in Suburban Yinchuan"]

[Text] (1)

As a result of the liberalization or rural economic policies, increases in purchase prices paid for farm products, establishment of agricultural production responsibility systems, and readjustment of the internal structure of agriculture in the wake of the Third Plenary Session of the 11th Party Central Committee, simultaneously with continued increases in food production in suburban Yinchuan, definite development has also occurred in forestry, animal husbandry, sideline occupations, fisheries, processing industries, and such economically diversified industries.

In 1981 suburban Yinchuan passed the 100 million jin mark in food production for the first time, to set an all-time high. Despite severe freeze damage done to vegetable production, it fulfilled 79 percent of plansales to the state. Despite reductions in the area sown to oil-bearing crops, increases in yields per unit of area brought an increase over the previous year in total output. Tremendous increases took place in both the area planted to sugarbeets and sugarbeet output, total output increasing by 38 percent over 1980. In 1981 both afforestation and growing of seedlings overfulfilled plan. At the end of the year, large livestock animals in inventory numbered 17,663, a 4.3 percent increase over the previous year. The number of live hogs in inventory decreased by 3.4 percent over the previous year; however, the number of fattened hogs removed from inventory increased by 4.9 percent over the same period during the previous year. Chicken raising and marten raising also saw definite development. During the last 3 years, Yinchuan suburban commune member household sideline occupations have developed fairly rapidly. Throughout the suburbs, a group of specialized households and key households for the raising of livestock and poultry already exist. A representative sampling shows that last year commune member household sideline occupation earnings accounted for a general 20 to 40 percent of gross earnings. At Luhua Fourth Brigade in Luhua Commune, commune member household sideline occupation earnings amounted to more than 70,000 yuan, an average of somewhat more than 1,300 yuan per household or somewhat more than 270 yuan per person and about 60 percent of commune member household gross earnings. Accompanying development of production has been an increase in output of agricultural sideline products. Purchases of agricultural sideline products in suburban Yinchuan substantially fulfilled state plan. Last year, except for purchases of vegetables and fresh eggs, which were less than the previous year, purchases of all other goods increased. Sales of live hogs for the year as a whole totaled 6,384 head, each head averaging an undressed weight of 204 jin, which was the highest undressed weight for fattened hogs sold in the irrigation district. Sheep and goat assigned procurement quotas were fulfilled with 2.693 head for an 18 percent overfulfillment of plan. Seven thousand tons of sugarbeets were sold to the state, making it the only county (or district) in the irrigation district to overfulfill sugarbeet sales quotas.

Though growth has occurred in suburban Yinchuan's economic diversification, speed of growth has not been rapid; kinds of diversification have not been numerous; and development has been also unbalanced from one commune and brigade to another. A trend toward decline still exists in the production of some items. The most prominent problem is 3 consecutive years of decline in production of vegetables. Vegetable sales to the state during 1978 were 103,450,000 jin. In 1979 it was 94.63 million jin; in 1980, 75.48 million jin; and last year only 71.02 million jin, making it impossible to find a solution to the problem of vegetables for the people in the municipality during the slack season in vegetable production. Numbers of hogs, sheep and goats, and chickens raised declined too. At the end of last year, sheep and goats in inventory numbered 56,339, a 1.37 percent decline from the previous year. In 1979 the number of ducks raised increased to somewhat more than 70,000, but declined last year to somewhat more than 10,000. The fish raising area is small and yields low. Last year only 4,500 jin of fish were produced. The foundation for agricultural sideline product processing is frail. Only a small number of communes and brigades in the close-in suburbs operate processing plants for non-staple foods and livestock feeds. Output value from commune and brigade enterprises last year fell by 22.7 percent from 1980. As a result of agricultural sideline products provided the city by state purchases, last year pork sales to the state averaged 13.1 jin per capita; mutton or goat meat sales averaged 0.54 jin per capita, and fresh eggs averaged 1 jin per capita. Quantities of pork, mutton or goat meat, and fresh eggs sold the state by the suburbs as a whole amounted to 14 percent, 6.3 percent, and 6.7 percent respectively of sales by the city as a whole. Supplies of beef, poultry, and aquatic products for state-owned enterprises in the city were virtually entirely dependent on transportation from elsewhere.

(2)

In view of the foregoing, does suburban Yinchuan have the conditions required for the building of non-staple food production bases? The answer is yes. Yinchuan's suburbs have an area of somewhat more than 554,000 mu including almost 210,000 mu of cultivated land, about 100,000 mu that can be cleared for farming, more than 28,000 mu of lakes, more than 34.000 mu of river flats, and more than 50,000 mu of alkaline flats. Following institution of production responsibility systems, about one-third of the workforce is surplus. In the far-out suburbs there are large tracts of land suitable for development of grain and sugarbeet production, the forestry industry, fisheries, and the raising of cattle and sheep. In the close-in suburbs, people are numerous and transportation is convenient, and the city's excrement and residue from its processing industries, and such by-products, may be used for the development of vegetable growing, livestock and poultry raising industries, and processing industries. A very great potential exists for development of economic diversification.

First of all, as far as the farming industry is concerned, sufficient vegetables should be grown to satisfy the needs of the city. Yinchuan's suburbs lie close to the city. It has a plentiful supply of fertilizer and climatic conditions are relatively good, making them suitable for the growing of vegetables. Figured on the basis of the farming area for the suburbs as a whole, between 1976 and 1981, the suburbs provided the state commodity vegetables at an average rate of somewhat more than 6,500 jin per mu. Conditions are particularly favorable for the growing of Chinese cabbage, with yields of more than 10,000 jin per mu being produced between mid-July and the end of October, maximum yields reaching somewhat more than 25,000 jin per mu. Prospects are also very good for the production of vegetables in plastic enclosures during the winter and spring seasons. This plus the learning of advanced vegetable growing techniques and how to store vegetables well during the winter could mean a change in Yinchuan's vegetable shortage during the slack season in production.

Yinchuan's suburbs lie fairly close to sugar refineries, making it easy to get technical guidance and sell sugarcane. There is a lot of land in the far-out suburbs, so development of sugarbeets also offers great advantages. Last year Luhua Fourth Brigade in Luhua Commune grew 300 mu of sugarbeets, most of them intercropped, each household averaging 5.5 mu, producing more than 12,500 jin of sugarbeets for average per capita earnings of more than 100 yuan. Some brigades used scientific intercropping methods, making full use of cultivated land to develop sugarbeet production. The building of a forestry industry has far-reaching significance for the beautification of the city and the suburban environment, for regulating the climate, and for improving the ecological balance. It is also a very important way in which to generate and amass wealth. Lojiazhuang Brigade in Yinxin Commune is a close-in suburban vegetable growing brigade with many people relative to the amount of land. Beginning in 1977, it carried out a vigorous program to plant trees by both the collective and individuals at the same time. Today the brigade has more than 278,000 trees, or 105 trees per capita. Were Yinchuan's suburbs to plant trees and create forests year by year in all the wasteland river flats, ditches and ravines suitable for afforestation, they would play a major role in the promotion of agriculture, animal husbandry and the development of economic diversification. Both conditions and markets exist for melons and fruits, and the growing of grapes and other fruits by commune members' families holds particularly good prospects. It would be a good way both to satisfy the needs of the city and to increase commune member earnings. During the past 2 years, Honghua and Yinxin communes have developed fairly rapidly. If the cultivated area were appropriately enlarged and farming techniques improved, great increases could be made in the quantities of melons and fruits provided the city.

Secondly, a look at the breeding industry shows that large quantities of residues are available for the raising of pigs from beans used to make soybean milk, vermicelli, and soy sauce, from grains used to make alcoholic beverages, and from fruits used to make vinegar. Slop from city restaurants and crushed canes from sugar refineries also make fine food for hogs. Many advanced representative examples have occurred showing the low cost and high benefits obtained from feeding hogs such materials. An example was in the Lojiazhuang Brigade where 365 peasant households of the Han race used the bean dregs and liquid resulting from a nearby bean products plant to feed a total of 1,432 head of hogs last year, or an average 3.9 head per household. They sold their live hogs, weighing a total of somewhat more than 134,000 jin gross weight, or an average 367 jin per household. Last year Luhua Brigade in Luhua Commune used mostly sugarbeet leaves as hog fodder to raise more than 500 hogs, or an average of almost two head per peasant household.

A good foundation already exists in suburban Yinchuan for the raising of chickens. The raising of chickens and the hatching of eggs is already being done on a fledgling scale, and some experience has been accumulated in the raising of chickens. In the urban area business network outlets are numerous; buting, selling, and transporting chicken eggs is convenient; and the breakage rate is low. Already a group of specialized households and key households for the raising of chickens has come into being. Zhi Wancai's [2535 5502 2088] chicken raising household in Lojiazhuang Third Brigade, Yinxin Commune, raised 128 laying hens that layed about 730 jin of eggs between mid-October last year and mid-February this year, which he sold for an income of more than 1,100 yuan. After deducting feed costs, net profit was more than 450 yuan, and he also had 138 mature hens, each with a value of 3.50 yuan for a value totaling 483 yuan. According to estimates from the suburban livestock and animal husbandry station, a single fine variety laying hen will produce about 20 jin of eggs. If suburban Yinchuan with its 550 production teams were to have two specialized households or key households per production team to raise chickens, each household raising about 50 laying hens, the suburban area as a whole would be able to provide virtually the approximate amount of eggs now being provided the city.

In 1978, the Manchun Brigade in Manchun Commune began to operate a milk cow farm, which now has 100 cows and produces about 300,000 jin of milk annually for net earnings of somewhat more than 20,000 yuan. At the Liangqu Tenth Brigade in Luhua Commune, Liu Shenghua [0491 3932 5478] raised 4 milk cows, which produced more than 10,000 jin of milk in somewhat more than 5 months last year for net earnings of more than 1,200 yuan. As a result, milk cow production has actively developed, another important aspect in the increase of non-staple foods to the city. Suburban Yinchuan has numerous water surfaces, having more than 8,000 mu where fish could be raised, most of which are not in use. If fully used, each mu producing 100 jin of fish, output would total between 700,000 and 800,000 jin. For this reason, active support to the development of fish raising is very necessary. Raising of sheep and goats, beef cattle, rabbits, and martens in the suburbs of Yinchuan also holds great promise.

Third, development of processing industries centering on agricultural byproducts is a major aspect of development of suburban Yinchuan commune and brigade enterprises. Right now the foundation is fairly weak in this regard, both agricultural byproduct raw materials and varieties for processing being few. Thus, it is necessary to create conditions for the processing of foodstuffs, vegetables, and livestock feeds. Once conditions have been prepared, Islamic foodstuffs such as canned goods may also be made a part of processing industries.

(3)

Conditions exist for the building of the suburbs of Yinchuan into a non-staple food production base. So how can it be built and developed? We held meetings with suburban, commune, and brigade cadres, masses of commune members and vocational department cadres among whom the consensus was that work in the following several realms should be emphasized:

1. To proceed from the necessity to build a non-staple food production base, and genuinely strengthen leadership for the development of economic diversification for early results. Use of thoroughgoing and painstaking ideological work to indoctrinate suburban cadres and the masses of commune members to make clear the major responsibilities they bear in providing the city with greater amounts of non-staple products, to overcome and reverse the emphasis of close-in communes and brigades on industrial sideline occupations while slighting vegetable production and the tendency of far-out suburban communes and enterprises to pay no attention to economic diversification in an effort to provide more vegetables, meat, poultry, eggs, and such non-staple foods to the city to make a greater contribution to the country. There is a need to fully staff and perfect management organizations and to establish personal responsibility systems, the principal comrades responsible in the suburbs, communes and brigades taking a firm grip on the task of economic diversification, clarifying duties, and devoting attention to implementation level by level. The Municipal CCP Committee and the Municipal People's Government has to consider the building of non-staple food production bases on the basis of realities, giving active financial and material support to the suburbs. All units concerned in the autonomous region and in Yinchuan Municipality should also give direction with a positive attitude, support, coordinate, help and sustain suburban communes and brigades in vigorous development of economic diversification.

2. Adhere to a program of taking the planned economy as the key link and market regulation as supplementary. There should be earliest possible action on the basis of a comprehensive survey and zoning of natural agricultural resources to readjust the structure of agriculture through the adaptation of general methods to specific situations, and to develop all-around plans for agricultural production. Currently, while maintaining a firm grip on grain production, full use should be made of natural conditions and economic resources for the active development of the breeding industry, the farming

industry, and the agricultural byproducts processing industry, particularly the development of vegetable, melon and fruit, sugarbeet, forest tree, hog, sheep and goat, dairy cattle, chicken, duck, and fish production to achieve self-sufficiency in vegetables, with gradual improvement in the self-sufficiency rate for supplies of other agricultural byproducts. Commune and brigade enterprises will have to make major efforts on the agricultural byproducts processing industry and devote any remaining resources to the operation of other industrial sideline industries. Enterprises lacking assurance that raw and processed materials can be provided or enterprises lacking markets for their products should make readjustments for gradual conversion to agricultural byproducts processing industries.

Vegetable production is an important matter bearing on the livelihood of the more than 200,000 residents of suburban Yinchuan that requires a strengthening of leadership and diligent efforts. Communes and brigades already designated to produce vegetables must persevere in making vegetable production paramount, using their major manpower, material, and financial resources on the production of vegetables to insure supplies to the city. The vegetable field area is to be maintained at its present size, and usurpation of vegetable fields for urban construction and commune and brigade enterprises is to be resolutely halted. Vegetable communes and brigades must strictly carry out state plans, individual crop planting areas and quantities being fulfilled, and sales quotas at different times and for different varieties being fulfilled. Production teams and commune members practicing the assumption of full responsibility by individual households are to resolutely carry out contracted sales tasks for vegetables. Communes, brigades, and and commune members that do not carry out plan may, in addition to being criticized and indoctrinated, have their grain rations reduced, be fined, or have other economic action taken against them. When problems arise about vegetable production responsibility systems, attention should be given investigation and study, summarization of experiences, and constant perfection of responsibility systems to solve new problems that arise and to assure that vegetable production develops in a planned way in accordance with needs.

Household livestock and poultry raising industries should promote the experiences of Lojiazhuan Brigade in Yinxin Commune, and continue to adhere to a program of walking on two legs with both collective raising and raising by individual commune members. Commune and brigade operated farms concentrating on the breeding of stud livestock and stud poultry should do a good job of breeding and hatching, actively serving commune members in developing breeding industries, placing the emphasis for breeding on commune member households. There is to be active promotion of contract systems with indoctrination of commune members in concurrent concern for the welfare of the country, the collective, and individuals, material and spiritual encouragements and rewards being given those who fulfill contracts, and indoctrination and punishment being meted out to those who do not carry out agreements.

3. Energetic development of specialized households and key households to energize the broad masses of commune members in launching economic diversification. Development of specialized households and key households

for the breeding industry and farming industry with little investment, for quick results and great benefits is a new way to hasten the building of non-staple food production bases in the suburbs of Yinchuan, and should be vigourously encouraged. The suburbs should have short-term and long-term development plans for specialized household production, and should use the signing of contracts to make specialized household production gradually become a part of commune and brigade non-staple agricultural production plans and state procurement plans. Specialized households should be permitted to use the specialized products they produce to fulfill their obligations to the state and to pay the collective various withholdings. If specialized households desire to contract the production of other items, they may, like other commune members, contract for them. If they do not want or lack resources to contract for other items, production teams may make appropriate readjustments on the masses of the scope of items being produced and individual desires so that their major energies are devoted to specialized production.

4. A good job of procurement work and keeping open procurement and marketing channels are major links in advancing the development of economic diversification. Business units are to actively support development of economic diversification and do procurement work well. In pricing policies, they are to maintain socialist business standing with no disparagement of quality in order to depress the price to be paid, or no upgrading to increase asking prices. Products not covered by agreements may be permitted to be handled as producers see fit. Effective measures should be taken to resolutely strike down and suppress "chiselers" who speculate and profiteers.

5. Active promotion of the application of science and technology to improve levels in economic diversification. At the present time suburban Yinchuan is still fairly backward in this regard and unable to meet needs for development of economic diversification. All-around processing and use of livestock feeds and fodders, breeding and promotion of fine varieties, processing, storage, and transportation of agricultural byproducts and such problems are in urgent need of solution. Thus, farm, forestry, and animal husbandry departments in the suburbs should strive to meet the new rural situation, establish personal responsibility systems, place work emphasis on the grass-roots level, gear to the needs of communes, brigades, and the myriad commune member households, operate study classes and rotational training classes for specialized households and key households, and select linked households and demonstration households for a combination of representative demonstrations and wideranging propaganda, and a combination of traditional agriculture and advanced techniques, adapting general methods to local situations for the promotion of new techniques and new experiences in economic diversification. Yinchuan City and its suburbs should jointly run a vegetable research institute, and actively launch research and promote techniques for vegetable production and storage. Autonomous region and Yinchuan municipal farming, forestry, animal husbandry, and aquatic products scientific research and vocational departments should regard as part of their jobs suburban Yinchuan development of economic diversification and the building of non-staple food production bases. They should lend support and direction to suburban pilot projects and demonstrations on vegetable production and economic diversification so that science and technology blossom everywhere in the development of economic diversification in suburban Yinchuan.

9432
CSO: 4007/488

SHANDONG

BRIEFS

PROVINCIAL AGRICULTURE PROGRESS--Agricultural, industrial and sideline production in Shandong Province has made rapid progress. In 1981, the province had a grain output of 1,204 jin per mu, an increase of 260 jin per mu over 1980. Total income in 1981 was 361,600 yuan, an increase of 15,640 yuan over 1980. Per capita distribution was as high as 215 yuan, an increase of 35 yuan over 1980. Despite the drought condition this year, the province still reaped a bumper harvest of wheat. It sold 240,000 jin to the state during the first quarter of 1982, overfulfilling its quota for the entire year by over 10 percent. Per capita consumption of wheat is more than 250 jin. This is a good result of carrying out the responsibility system on a large scale. [Excerpt] [Jinan DAZHONG RIBAO 9 Aug 82 p 1]

SHANDONG WHEAT OUTPUT--Despite a continuous drought and hot dry wind and the loss of relatively large harvested areas, the wheat production in Shandong Province is better than projected. Dezhou, Liucheng, Heze, Jining and Lingyi prefectures all had increased output over 1981. The total output of wheat in the province's 123 counties, municipalities and prefectures is over 40 percent more than in 1981. More than 10 counties had a total output increase of over 30 million jin, and more than 20 counties had an average increase of over 100 jin per mu. [Excerpt] [Jinan DAZHONG RIBAO 8 Aug 82 p 1]

CSO: 4007/549

HARVESTING COMBINES WIDELY INTRODUCED INTO SHANGHAI SUBURBS

Beijing ZHONGGUO NONGMIN BAO in Chinese 22 Jul 82 p 1

[Article: "Suburban Shanghai Rural Villages Begin To Realize "Responsibility Systems With Mechanization. With Use of Combines, Commune Members Will No Longer Have To Do the 'Three Stoops'"]

[Text] During this year's summer harvest at Pengchao Brigade in Jiading County of suburban Shanghai, which has instituted specialized contracting in a responsibility system that links output to workforces, after taking samples to monitor output and obtaining the agreement of commune members, two combines were brought in. In less than half a day's time, harvesting and threshing were finished, and after weighing the grain on the spot and converting to dry grain equivalent weight, yields were found to average 544 jin per mu, 50 percent more than last year. Commune members said joyously, "Formerly it was the 'three stoops' that were most tiring, but now harvesting and threshing are all done at once, and we want this kind of responsibility system with mechanization!"

"Responsibility system with mechanization" is the common cherished desire of the broad masses of Shanghai suburban peasants. Since the Third Plenary Session of the 11th Party Central Committee, accompanying the all around development of agricultural sideline occupations has been a net decrease in agricultural workforces. Last year net agricultural workforces in Shanghai's suburbs amounted to only 56.4 percent of total available workforces, and 62.1 percent of these were female members of the workforce. Though each person is responsible for the farming of an average of only slightly more than 3 mu, the multiple cropping index is as high as 240 percent. Peasants who practice the linking of output to workforces generally reflect the intensity of labor when they say, "Responsibility systems are fine indeed, but the exertion is sometimes hard to take."

Practice has made leaders at all levels in suburban Shanghai come to the realization that general mechanization on a foundation of responsiblity systems is both a necessity in continued maintenance of the fine tradition of intensive farming and a necessity for stabilizing and perfecting agricultural production responsibility systems. It was for this reason that they actively ran pilot projects at Malu Commune in Jiading County and at Lodian Commune in Baoshan County. Beginning last year, they used accumulations from agriculture itself for the large-scale introduction of combines, which are most needed in agriculture and which reduce labor intensiveness most strikingly. As of this spring, 10 counties in the prefecture had introduced 362 combines for an average of 2 per commune. When these harvesting combines were used in conjunction with existing machinery, the intensity of commune member labor during the very busy season was greatly reduced, and the "foot dragging fields," and "tail end fields" that dragged out the farming season were eliminated.

The practice of a "responsibility system with mechanization" in Shanghai's suburbs has already demonstrated its superiority in three regards. One is promotion of the stability and perfection of responsibility systems. In some production teams practicing the linking of planned output to workforces, the conflict among individual households during the harvesting season for use of threshing grounds and threshing machines had been very pronounced. But with harvesting combines, the real strength of the collective has been increased. Everything that lends itself to centralization is centralized, and production team heads no longer need to have "headaches" about arrangements for use of threshing grounds and threshing machines. For some production teams in which responsibility systems could not be instituted because of the large amount of land relative to population, through the boost that mechanization has provided, responsibility systems have been very quickly instituted. A second is promotion of a beneficial cycle in agricultural sideline industires and their coordinated development. Agriculture can steadily support industrial sideline occupations with workforces, and industrial sideline occupations can, in turn, steadily provide agriculture with accumulations of funds. The path of coordinated development of agricultural sideline industries becomes wider and wider. Third is a fundamental reversal in the trend toward departure from agriculture. Commune members say happily that with an increase in mechanization, the 'three stoops' have been solved. Working the fields is more or less like working a factory, and we have no desire to go into enterprise units. Today in Lodian Commune, Baoshan County, where the largest number of combines have been introduced, the "extremely busy season is not busy," and commune members who farm go to movies as usual, their per capita distributions averaging 350 yuan, not much different from commune members who are engaged in industry. As a result, they are universally content to farm.

9432
CSO: 4007/494

BRIEFS

RAINFALL IN SICHUAN BASIN--Beginning on 15 August, heavy and torrential rains have fallen on the western part of the Sichuan Basin, including Wenjiang, Leshan, Yaan and Mianyang Prefectures and Chengdu Municipality. These torrential rains centered around Shifang, Xinjin, Shuangliu, Qionglai, Pengshan, Renshou, Leshan and Jingyan counties. Up to 1600 on the 16th, 42 counties had received over 50 millimeters of rain. Among them, 14 counties had 100-264 millimeters of rain, and Renshou County's (Gongnongchuan) had the most rain--264 millimeters. This time, the rains fell over a vast area and with relatively great intensity. In Rongxian County's (Xinqiao), 88 millimeters of rain fell in 2 hours and 136 millimeters in 6 hours. The water levels of the Minjiang, Tuojiang, Qingyijiang and Fujiang Rivers are rising. The water levels of the Minjiang and Qingyijiang have already exceeded the warning marks. At present, the flood season is not yet over. All localities should do a good job in guarding against floods and controlling water. [Text] [HK181228 Chengdu Sichuan Provincial Service in Mandarin 0030 GMT 18 Aug 82]

CSO: 4007/551

NEW-STYLE ECONOMIC COMBINES DISCUSSED

HK160327 Kunming YUNNAN RIBAO in Chinese 2 Aug 82 p 2

["Work Research" column by Zheng Yanshi [6774 6056 1395]: "Correctly Understand and View the New-Style Economic Combines"]

[Text] In the development of the production responsibility systems in rural areas, especially in those areas where the system of assigning households full responsibility for task completion has been practiced, a new trend of economic combination has appeared among the commune members. This kind of economic combination takes various forms. There are combinations or certain production elements, certain production links and certain production (or business) items. Some of them are temporary and some are relatively regular. There are multibrigade and multicommune combinations and combinations of commune members and residents in towns and cities. A peasant household may be engaged in several combinations at a time. The emergence of these new economic combinations taking various forms has added new vitality to the enlivened rural economy.

These activities of economic combination, which are extensive and varied, have naturally given rise to a number of new-style economic combines, which are economic entities relatively independent of the collective economy of the communes and brigades and are voluntarily and freely established by commune members with the participation of several households. The funds for these combines are collected and the equipment purchased all by the participants themselves. They work together, carry out independent accounting and assume sole responsibility for their profits and losses. For example, three commune members, (later developed to five households and nine laborers) Deng Liangshi, Tao Renbin and Wang Bangming in the Taojiawan production team of the Haozhi brigade, Xinglong commune, Yanjin County, each of whom collected and contributed 30 yuan, jointly run a small factory to produce flues, which are used in producing flue-cured tobacco. Since it went into operation last November to the end of May this year, it has gained an income of 8,015 yuan by selling 17,000 of its products. After deducting 2,856 yuan for accumulation and production costs, 5,159 yuan was distributed among the participants. On average, each participant created a value of 4.3 yuan on each working day. Such economic combines have now appeared everywhere.

At present, since the new-style economic combines are still at their initial stage, they are small, scattered and unstable. Most of their businesses are within the range of industrial and sideline production, having a purpose of serving agricultural production (including the diversified economy) and the livelihood of the masses in their localities.

As soon as these economic combines came into being, they displayed their advantages. They were vividly summed up by the masses of people who said that in these combines, "shares are bought voluntarily and suggestions are made by all. Work is done well and the management is good. The products are marketable and distribution is made according to work." These economic combines are usually small and flexible. They often do things in a simple and thrifty way, using available local resources. Since the economic makeup and management methods are simple, the investment is usually small but economic returns are quick and economic benefits are more direct. The members of the economic combines are owners of these combines and at the same time, managers and laborers. There are no such problems as "eating out of the same big pot" or the "iron rice bowl," and every participant has to work hard. Thus better economic results are usually achieved.

The economic combines are advantageous to making full use of natural and manpower resources and idle funds so that they can be changed into new productive forces. They are also advantageous to giving full play to the roles of skilled craftsmen so that the technological level in the countryside can be raised under their guidance. They are good for the development of the diversified economy and commodity production in the light of the local conditions so that the rural economy can be stimulated and the peasants' livelihood can be improved. They can satisfy some of the pressing demands of the masses in their present production and livelihood and promote the future development of the rural economy along the orientation of specialization and socialization.

On the other hand, we must also recognize that since these combines are only a kind of economic organization which is collectively owned and jointly run by a small number of peasants, they usually concentrate their attention on their partial and immediate interests and put profit-making first. Blindness in production and business can easily occur. Sometimes, they may even sabotage state planning and damage the interests of the state and the interests of communes and brigades. If leadership is not exercised over them, they may easily rush headlong into action, disperse in a hubbub and perish of themselves. These are limitations and shortcomings of the economic combines.

The emergence of the new-style economic combines after practicing the system of assigning households full responsibility for task completion was not a chance phenomenon. It is an example showing the emancipation of productive force since the great readjustment of production relations in the countryside. After the system of assigning households full responsibility for task completion was practiced in many production teams, the commune members felt that they "had enough food to eat, but had not enough money to spend." They became anxious to develop a diversified economy so that the surplus labor could find a way out and they could gradually become well-off. However, since many businesses cannot be run individually or by only one household, the new-style economic combines, which are called "gathering together in business" by the masses, have emerged as the times require. This is a result of the role of the objective economic law which requires that production relations suit the development of productive forces. It is also a concrete expression of the creativeness of the masses of peasants.

The new-style economic combines are new things which have emerged at present in the countryside. They have posed a series of new theoretical and practical problems which need to be studied and solved. What is our correct attitude in understanding and viewing these problems? We would like to offer our following initial opinions.

1. The new-style economic combines among the commune members are new economic formations which are collectively owned and jointly run by the laboring masses. They are a new component part of the socialist collective economy in the countryside. Therefore, we must encourage, guide and help them to develop and must adopt a policy of enlivening these combines so that they will play an active role in the development of the rural economy.

2. While encouraging the development of the new-style economic combines, the commune and brigade economies must not be neglected or weakened. It is necessary to forcefully help the communes and brigades run collective industrial and sideline enterprises well and prevent the new-style economic combines from damaging the collective economies of communes and brigades through appropriating or purchasing commune and brigade property at a low price.

3. In principle, the new-style economic combines and commune and brigade enterprises must be equally treated in terms of rights and duties, such as tax payment and loans. When the economic combines need to use state and collective material resources, they must be charged necessary fees. Sabotaging the material resources of the state and the collectives is not allowed. Besides, it is also necessary to handle well the relations between the economic combines and individual producers in rural areas, preventing the trend of merely encouraging individual producers and restricting economic combines. We must let them have equal opportunity to develop and give play to their advantages.

4. Referring to leadership system, the new-style economic combines among the commune members must be under the leadership of the local government. Before government administration and commune management are separated, communes and brigades in the respective localities must take charge of the leadership work. The administrative departments of the commune or brigade enterprises at various levels must, according to the requirements of the relevant documents of the provincial people's government, take the work of the economic combines as their own work and give them concrete guidance. They are required to help the economic combines overcome difficulties in production, supply and marketing, improve their management and constantly improve their processing techniques with local resources so that the diversified economy in the countryside can be further developed. They must help

them produce more inexpensive and good commodities, tap new sources, open up new markets and improve their service so that their economic forces can be gradually expanded and the range and quality of their production can be developed. It is necessary to strengthen the ideological and political work and make the combines abide by state policies and decrees, accept the guidance of state planning, give consideration to the interests of the state, the collective and individuals and distribute according to one's work. It is also necessary to give guidance to their arrangements and economic activities by means of various economic levers and contract systems so that such things as duplication of the same trade can be avoided and the economic combines can develop healthily along a correct path.

CSO: 4007/551

BRIEFS

FERTILIZER SHORTAGE--Participants to a recent provincial conference on fertilizer work made some recommendations on solving the current fertilizer shortage for Zhejiang's late rice crops. They noted that organic fertilizer is about one-third short and that the supply of chemical fertilizer is also less than last year. They suggested that every peasant household should accumulate organic fertilizer and that chemical fertilizer should be used rationally. [Hangzhou Zhejiang Provincial Service in Mandarin 1030 GMT 10 Jul 82]

FEED INDUSTRY--The Zhejiang Provincial Food Department recently held a province-wide conference on the feed industry. From 1979 to 1981 the province made arrangements for the construction of 40 feed processing plants. As of now, 25 of them have been completed and put into operation. And 14 others will be put into production in the near future. About 29 million jin of mixed feed were produced in 1979 throughout the province, but the output rose to 400 million jin in 1981. The provincial people's government has drawn up a plan for building 120 feed processing plants within the next 3 years. [Hangzhou Zhejiang Provincial Service in Mandarin 1030 GMT 1 Jul 82]

CSO: 4007/551

AUTHOR: SHI Hongxi [4258 7703 3556]
JIANG Zhihua [5592 1807 5478]
SHEN Rengyu [3088 0095 1946]

ORG: SHI, JIANG of Institute of Crops, Shanghai Municipal Academy of Agricultural Sciences; SHEN of Shanghai College of Agriculture

TITLE: "On the Relationship Between Changes of Ecological Condition in Shanghai Suburbs and the Yield Reduction of Cotton"

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 4, 5 Aug 82 pp 1-4

ABSTRACT: Since the unit yield of cotton of the 1.40 million mu of cotton acreage of Shanghai suburbs successfully reached over 100 jin in 1964, the yield has been high but not stable, varying from 169 jin of 1978 to 91 jin of 1977 historically and from the 198 jin of the highest county to the 56 jin of the lowest county geographically. Following an analysis of the conditions of land, rainfall, temperature, daylight, typhoon, diseases, and pests, the paper concludes that of all the ecological conditions, the effect of the weather condition is the greatest. A mathematical model: $\hat{y} = (x + \Delta x) \times (1 - \eta)$ to demonstrate the relationship between the yield potential $(x + \Delta x)$ of a given year and the rate of yield reduction due to unfavorable ecological factors (η) is explained. Finally, the paper proposes the 3 measures of increasing the layer of mature topsoil to 20-25 cm to promote root development, improving drainage to activate soil fertility, and encouraging early development to increase the weight of cotton bolls, to counter the variable ecological conditions.

6248
CSO: 4011/213

AUTHOR: WANG Shenghai [3769 5110 3189]

ORG: None

TITLE: "Actively Help Commune Members Manage and Use Private Mountains Well"

SOURCE: Beijing ZHONGGUO LINYE [FORESTRY IN CHINA] in Chinese No 7, 17 Jul 82 pp 13-14

ABSTRACT: Last year, the Laiwu County Committee and government of Shandong Province issued forest rights certificates at an assembly of all the county's 15 communes (towns). It is clearly stipulated on the certificate that the private mountain is owned by the collective body and its sale, lease, and transfer are not permitted. It may only be used for afforestation or raising saplings and cultivation of anything else is not allowed. Trees planted by a commune member belong to that member perpetually and his sons and daughters will be permitted to inherit them. Forests of private mountains are protected by the law same as those belonging to the State and collectives. These certificates removed the worries of those members who contributed saplings, money, and labor to afforest those mountains. The county has 900 thousand mu of land suitable for afforestation; of these 710 thousand mu were managed by communes and brigades. Last year, all this acreage was readjusted and 387 thousand mu of which that had better trees were retained by the brigades and 184 thousand mu of which that were not in very good condition were given to the production teams which in turn divided 138 thousand mu to the 53 thousand memberhousehoods. These private mountains given to the members were all barren. After

[continuation of ZHONGGUO LINYE No 7, 1982 pp 13-14]

this readjustment, the key problem was to help the commune members to do a good job of afforesting these barren mountains, which amounted to 19 percent of all the land of the county suitable for growing trees. Aside from issuing certificates to ease the mind of the members, the county provided 2 million saplings, set the standard of land preparation and planting quality, and organized for guidance and inspection. These measures proved to be very effective, and so far 75 thousand mu of the 138 thousand mu of private mountains have been prepared and 51 thousand trees have been planted. The successful afforestation project in Laiwu County of Shandong Province is reported in the paper.

6248
CSO: 4011/206

AUTHOR: HUANG Yongka [7806 3057 2818]
WANG Tonghua [3769 4827 0553]
TONG Chun [4547 3196]

ORG: All of Institute of Grain Crops, Hubei Provincial Academy of Agricultural Sciences

TITLE: "An Effective Way of Late Rice Breeding-- Sub-Xian-Geng Hybrids"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCE] in Chinese No 8, Aug 82 pp 1-3

ABSTRACT: After many years of repeated exploration and practice, the authors have summarized and found 2 effective ways of hybridization to breed late rice: the sub-xian-geng hybridization method and the method of interspecific hybridization of varieties of different ecological types. This paper reports the first of the two only. Since 1972, the authors have successfully experimented with the technique of crossing breeds containing Xian and Geng cytoplasm first before crossing the hybrid with either Geng or Xian to overcome the problem of sterility of F1 and F_2 Xian-Geng hybrids. With this technique, from the initial crossing to stabilization, 6 generations are sufficient to produce a new breed. For the convenience of expression, the authors call this type of new breeds, sub-xian-geng. With this technique, the sources for hybridization are greatly enlarged and the current problem of narrow genetic foundation of late rice hybrids may be resolved. Problems still exist with respect to selection of the hybrid offsprings, however, and it remains a difficult task to breed out ideal new varieties having the merits of both Xian and Geng types.

AUTHOR: ZHU Ruichang [2612 3843 2490]

ORG: Jingzhou Prefecture Research Institute of Agricultural Sciences

TITLE: "Expressions and Selection of F_2, F_3 of Triticale-Wheat Hybrids"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCE] in Chinese No 8, Aug 82 pp 4-8

ABSTRACT: The author and colleagues have reported in a previous paper that according to their observation in 1980, the F_1 of triticale-wheat hybridization is sterile when paper bags are used to insure self-fertilization, but when it is left open for free fertilization, it will fruit to expand the genetic foundation. In 1979-81, hybrid offsprings of triticale-wheat were again left to proceed with free pollination, fruiting, and segregation and in some cases the hybrid offsprings were purposefully backcrossed and selected for the purpose of observing the expressions and the results of selection. Such expressions as disease resistance, high yield property, maturization period, fruiting rate, etc. are described.

AUTHOR: ZHANG Shuisheng [1728 3055 3932]

ORG: Huanggang Prefecture Research Institute of Agricultural Sciences

TITLE: "An Analysis of Wheat Breeds Used in Huanggang Prefecture"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCE] in Chinese No 8, Aug 82 pp 9-11

ABSTRACT: In a normal year, the wheat acreage in Huanggang is about 2.5 million mu. In the 33 years since the liberation, with the changes of production condition and the development of productivity, there have been 2 major events in the use of wheat breeds in the prefecture: the extension of Nanda-2419 in 1956 and the extension of Omai No 6 in 1974; both brought important yield increases. In 1979, the average yield of the prefecture reached as high as 360 jin/mu. There have been yield decreases in the past 2 years, however, due to severe powdery mildew of Omai No 6 and serious degeneration of seeds. The high incidence of rust and powdery mildew and the attempt of obtaining high yield from both crops of cotton and wheat dictate the need of using dwarf wheat breeds that are more fertilizer tolerant and lodging resistant than Omai No 6, which is urgently in need of revitalization. Moreover, all the wheat breeds currently being extended in the prefecture, such as Omai No 6, 48130, 69-13-3, 2133, 31761, etc. are all related to Italian wheat. The genetic foundation is narrow and disease resistant genes are not sufficiently rich. Expanding the breed resources is very important if the yield of wheat in the prefecture is to improve.

6248
CSO: 4011/214

AUTHOR: YU Zheng [0151 1513]

ORG: Shaanxi Provincial Science and Technology Committee

TITLE: "Opinions Concerning the Soil and Water Conservation Work in Northern Shaanxi"

SOURCE: Xian SHUITU BAOCHI TONGBAO [BULLETIN OF SOIL AND WATER CONSERVATION] in Chinese No 3, Jun 82 pp 1-5

ABSTRACT: Soil loss due to erosion is extremely severe in the loessial plateau of northern Shaanxi, affecting an area of 67 thousand km^2, amounting to 81.9 percent of the total area of northern Shaanxi. The soil erosion modulus reaches 10 thousand tons/km^2· year. Every year, as much as 6.7 hundred million tons of sand flows into Huanghe from this region, amounting to more than 40 percent of the added silt in that river. The resultant thin soil and drought cause the level of agricultural production of the region to be low and unstable to form a drag on the economic development of the province and to cause the river to be more and more a threat to the lives and properties of its lower reaches. From 1954 to 1980, 8 billion yuan was spent on soil and water conservation of this region, not including afforestation. Many dikes have been built, washed away, and rebuilt and about 3.5 million mu of fields have been terraced, etc. Some believe these projects have not reduced the amount of sand going into Huanghe. This is obviously the result of the destruction of forest and the inferior quality of some engineering structures, but the

[continuation of SHUITU BAOCHI TONGBAO No 3, 1982 pp 1-5]

very fact that the sand content of Huanghe has not been increasing is a great achievement of these works. Others maintain that the cultivated acreage must be preserved to guarantee the yield of grains and are against the attempt of restoring the forest vegetation. They do not understand that the most reliable way of establishing a new ecological balance to resolve the problem of grain shortage is to practice a combination of farming, forestry, and animal husbandry. The paper seeks to justify soil and water conservation projects as well as to explain in detail the scientific and reasonable ways of proceeding with future conservation projects.

AUTHOR: HE Yubang [6320 3768 6721]

ORG: Shaanxi Provincial Bureau of Water and Soil Conservation

TITLE: "Major Factors for Speeding Up [Erosion] Control"

SOURCE: Xian SHUITU BAOCHI TONGBAO [BULLETIN OF SOIL AND WATER CONSERVATION] in Chinese No 3, Jun 82 pp 6-12

ABSTRACT: Since the liberation, erosion control has been carried out over 35.2 thousand km^2 in Shaanxi, amounting to 25.6 percent of the area suffering from soil and water loss, and averaging a speed of control of 1 percent/year. Construction of terraced, diked, raised, and sandbank fields was complete for 11.43 million mu, amounting to 25.9 percent of the province's slope land and the average speed is also only 1 percent per year. Due to various reasons, serious soil and water conservation work was carried out in only 15 of these 30+ years, in areas of more than 1,000 km^2 per year. In these 15 years, work was done in 2,000 km^2 in 10 years and 2,500 km^2 in 5-6 years. Thus, only in 7 years, the area of control amounted to more than 1.5 percent of the area of erosion and more than 2 percent in 3 years only. The best years were 1972-73, with 2.7 and 2.3 percent respectively. The average progress of the 50's is 1.3 percent; of the 60's 0.8 percent, of the 70's 1.1 percent, of the 80's 2 percent, to indicate a general tendency of fast-slow-fast. The speed of erosion control in the province must be quickened. It is entirely possible to deal with 2,800-3,200 km^2 per year to eliminate erosion in the province in 25 to 30 years. A good way of doing this is to control small drainage basins first and to combine the use of vegetation with engineering projects, with more than 60 percent emphasis on the former.

AUTHOR: None

ORG: Shaanxi Provincial Bureau of Water and Soil Conservation

TITLE: "Report of An Inspection Tour of Parts of the Changjiang Valley in Southern Shaanxi"

SOURCE: Xian SHUITU BAOCHI TONGBAO [BULLETIN OF SOIL AND WATER CONSERVATION] in Chinese No 3, Jun 82 pp 12-17

ABSTRACT: Following the flood disaster of 1981 in western Sichuan and southern Shaanxi, the problem of preventing Changjiang from becoming the second Huanghe has been the concern of all the peoples of the country. The National Agricultural Committee ordered the Changjiang Valley Planning Office to dispatch specialists, professors, and scientists to carry out comprehensive surveys in 4 teams for Yunnan and Guizhou, Hunan and Jiangxi, Hubei, Henan, and Anhui, and Shaanxi, Gansu, and Sichuan. This paper reports the portion of the survey carried out by the 4th team in 29 counties of southern Shaanxi, covering an area of 74 thousand km^2. Flood and erosion damages observed by the team are detailed. The paper also discusses the causes of the disaster and suggests water and soil conservation measures for reconstructing the region and for preventing further erosion.

AUTHOR: ZHANG Liming [1728 0448 6900]

ORG: Shaanxi Provincial Bureau of Water and Soil Conservation

TITLE: "A Survey of the Disastrous Flood in South Shaanxi in 1981"

SOURCE: Xian SHUITU BAOCHI TONGBAO [BULLETIN OF SOIL AND WATER CONSERVATION] in Chinese No 3, Jun 82 pp 21-25

ABSTRACT: In Jul and Aug 81, there were continuous heavy rains in the southern parts of Shaanxi to cause gigantic damages from floods, mudslides, landslips, rock flows the mountainous and plain regions alike. The area of southern Shaanxi has had frequent floods in recent years. The prolonged high volume autumn rains are the direct cause, but there are also the problems of lack of unified planing for controlling the rivers, the poor quality of the engineering structures, etc. Judging from the macrophenomenon, the abusive destruction of forest vegetation to create cropland is the important factor leading to the increasing severity of erosion and flood calamities. The paper summarizes the natural factors contributing to soil and water loss of the area, namely the water, the soil parent material,and the slanted terrain,and the human factors which exacerbate the situation, namely cultivating crops on steep slopes, destroying water nourishing forests, constructing plants, roads, and mines without considering water and soil conservation, etc. Some basic and comprehensive measures of water and soil conservation are proposed as the fundamental method for reducing drought and flood damages.

AUTHOR: FU Xizhen [0265 6932 3791]

ORG: Baoji Municipal Bureau of Forestry, Shaanxi Province

TITLE: "The Function of Forests in Controlling and Conserving Water"

SOURCE: Xian SHUITU BAOCHI TONGBAO [BULLETIN OF SOIL AND WATER CONSERVATION] in Chinese No 3, Jun 82 pp 54-56, inside back cover

ABSTRACT: Heavy rains fell in Feng and Taibai counties in the period 14-22 Aug 81 to produce the greatest flood disaster in the history of that region. By 28 Aug, dozens of persons were killed and several were still missing. The homes of more than 20 thousand were lost, and 100 thousand mu of the 280 thousand mu of cropland in Feng County were totally destroyed, in addition to the damages to railroads, highways, bridges, power transmission lines, dams, factories, dormitories, hospitals, schools, etc. This was a cruel punishment inflicted by nature on the people of China for destroying the forest vegetation and converting the land into mines, roads, and fields. The water controlling and conserving action of forests cannot be replaced by crop plants and engineering structures. This paper explains the water controlling and conserving action of forests in some detail. The paper also suggests enactment and strict enforcement of laws to protect forests.
6248
CSO: 4011/201

END

END OF
FICHE
DATE FILMED

1/12/82